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Dr B. Rush's manuscript
work on Hygiene ——

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Finished Dressing
30th of Novr.
1853. Tuesday
gave 4 lectures
on it stopd at House.

Much has been written upon the means of preserving health and prolonging life in all Ages and Countries. Poets have added their labors to those of the physicians and philosophers upon this subject. ~~Long Before~~ Poetry ~~upon the subject~~ have blended them-selves with it, as they have done with all other subjects of human ~~inquiry~~ knowledge. It has been supposed that it is possible by means of certain improvements in science, to counter-act the influence of time upon our bodies, or to repair their decay, and thus to produce an earthly immor-tality.

It ~~would be a waste of~~ will be unnecessary to contradict, ~~much less to spread a sentiment~~ this error. "Dust thou, and unto dust shalt thou return" is the universal & perpe-tual Sentence inflicted upon man & from which there is no reprieve. Utility, perhaps somewhat violence to reason & revelation, ~~It has liberally~~ it has been supposed that it is possible ~~by the same improvement in science to~~ by certain medicines, or modes of living, to protract life to the Antidiluvian Age. Paracelsus a ~~noted~~ German Chemist was the author of this opinion. The Elixir Vitæ liquor called propriétatis derives its name from its being supposed to possess this power. Many remedies equally absurd have been recommended for the ~~purpose~~ purpose of

protracting the ordinary limits of human life, ~~obtaining~~ ~~prospects~~, such as ~~bleeding in the~~ a diet consisting wholly of fruits, and other vegetables, ~~as of drinks~~, the exclusive use of water as a drink, - bleeding in the spring of the year, and the transfusion of the blood of young animals into old ones. They have all been tried without effect. ~~Time (says an eminent)~~ Not a single subject has, by this means nor by ~~other~~ any other ~~means~~ escaped from the empire of death. "Time (says a celebrated french writer) is as eternal in performing the business of destruction, as Nature is in the business of creation; nor can an anchor ever be thrown into the river of life so as to arrest for a moment our passage down its

overflowing stream". The common extent of ~~the duration of the~~ human life is from twenty to an hundred years. Very few attain to the former of those periods. One half who are born, die under puberty, and according to some calculations before the 8th year of life. This premature mortality of the human race, does not appear to be fixed by an irre-versable decree of heaven. It ~~has been~~ has been ~~to~~ prevented ~~to a certain degree~~ in many countries to a ~~and it may be prevented to a~~ certain degree, ~~in all countries~~ by the combined ~~influence~~ operation of ~~moral~~ physical and moral influence upon the body and mind, and where ~~they~~ this ~~have~~ failed of producing the wished for effects, it must

be ascribed to the neglect of all those relative circumstances which influence climate, season, sex, age, diet, occupation, and the different states of society. But the ~~benefits of the~~ Science of health, ~~do~~ does not extend barely to the prolongation of life. ~~They are~~ It is intended not only to prevent those painful ~~and~~ or distressing ~~chronic~~ diseases which render life a chronic death, but ~~rendered~~ ~~thus~~ to make it ~~as~~ comfortable & pleasant to ~~an~~ ~~enjoyment its~~ ~~Attainments in know-~~ while we do live. ~~They~~ It consists in ~~ledge and happiness~~. the knowledge and application of certain rules ~~for~~ with respect to aliments, drinks, air, drops, exercise, the faculties of the mind, and the excretions of the body; ~~and~~ ~~to~~ ~~taking care to diversify~~ in diversifying them according to the relative circumstances which

V Begin with Air - first principles
based of man. some remarks
on Animal life, and of breath depen
-ding on a due quantity of principles.

have been just now mentioned. In doing so ~~the author will~~ I shall endeavour never to forget that ~~he is~~ I am, writing chiefly for the benefit of the ~~citizens~~ inhabitants of the United States. V

I shall begin ~~with the history~~ by ~~a~~ making some general remarks upon aliments and drinks, and upon the times and manner of taking them, ~~as they affect health and life~~ and afterwards proceed to take notice of certain properties of ~~so~~ such of them as are in common use in our Country.

I shall begin ~~with~~ by making some remarks upon the Aliments & Drinks. ~~in the~~ I shall confine myself chiefly to those in use in our Country. This part of our subject will consist chiefly of facts; and ~~shall contain but little of that reasoning which is so agreeable in~~ ~~will afford you but~~ I will I fear be considered as ~~less~~ more proper for a kitchen than a room in a University — but yet the subject is highly important. Now 1st. Aliments & Drinks ~~are~~ ~~be~~ from their qualities or quantities

are the causes of many, very
many diseases. 2 our principal,
our most durable, & our most
~~durable~~ agreeable remedies are ~~take~~ derived
from Aliments & Drinks. ~~But~~ ~~&~~
It is certain has necessary for a physician
~~Aliments and Drinks are the~~
~~to be acquainted with this composition~~
~~principal subjects of Conversation~~
~~of as of the diseases that are found in~~
~~at most dinners~~ you will have
an apothecary shop: But 3rd
a better lot in life than most
physicians have
~~had~~ if you ~~go~~ as this ~~life~~ ~~to~~ ~~it~~
without sitting down at many
tables in which Aliments &
Drinks, or what is called "good
eating & drinking" will not consti-
-tute the principal subject of
Conversation: without some
knowledge of this subject you will
~~will must sit in silence, and~~

be respected ~~from you~~ of being ignorant of ~~many~~ other things supposed to be more useful in your profession.

It is certainly as necessary for a physician to be acquainted with their composition, as with the composition and doses of the articles of medicine that are prepared in an apothecaries shop. The most skilful, the most popular & the most successful physicians in all Countries have been those who have been most attentive to the diet & drinks of their patients. ~~This~~ ~~Dr Hydes has made his fortune~~ ~~this~~.

Before I proceed to mention the different ~~kinds of also~~ articles which constitute the food and drinks of man, it will be ~~necessary~~ proper to take notice of an opinion of some modern philosophers who have taken great pains to describe the gradual manner in which man discovered under the influence of his reason, or, by accident, the Aliments which were proper for his support. They tell us he first fed upon the spontaneous herbs and fruits of the earth, then upon roots accidently discovered by openings in the earth, and lastly upon grains discovered in like manner by accident. They tell us further that he acquired his first knowledge & relish for animal food from a priest

burning his fingers in burning a piece of flesh while it was offering up as a sacrifice upon an Altar, & then thrusting his fingers into his mouth in order to ease the pain of the burn. These opinions are as ~~altogether~~ absurd & hypothetical, as that which supposes that man advanced ~~upon which a and claps in absurdity to with the opinion of Dens having ad=~~ by gradual and accidental means, from a Savage, to a civilized state. The reverse of what has been taught ~~in both cases is~~ appears to be alike true in both cases. Man was created a civilized being, and the first Communities of men were all civilized. They ~~became~~ gradually become Savage from the loss of Religion and letters. This transition from the civilized, to the Savage state, is

a note

+ The Indians in this country are of this opinion, and hence it is a common saying among them, that "white men never become red men that is Indians, than red men become white!"

V the habits of civilized life, that he feeds upon the berries, fruits, and roots which spontaneously spring up upon the earth.

easy, and common, and hence the early existence and immense number of savage nations in every part of the world. In like manner ~~all~~ the different ~~kinds of aliments~~ substances upon ~~upon~~ which ~~are constitute the~~ ~~which~~ man ~~have~~ feed ~~fed~~ in civilized life, ~~was~~ appears to have ~~been provided~~ formed the first aliment of the ~~first family~~ father of the human race. They were I believe pointed out to ~~them~~ him by ~~the means of~~ revelation, without ~~a~~ ~~knowledge of them communicated in this~~ which he would probably have perished by famine, or destroyed himself by unwholsome, or poisonous products of the earth. ~~It appears probable~~ It is in his ~~very~~ departure only from U But

V It is no Objection to this Opinion that some of the most important dis-coveries in this Science, have been made by accident, and not by the reasoning ~~faculties of man, they~~ ~~So have improvements in this~~ Science have ~~not~~ been derived from accidents instead of the exercise of ~~the reasoning faculties of man, they~~ faculties of man; for what is accident as applied to the Subject before us ~~accidnt~~ ~~this kind of accident~~, but a Subordinate species of Revelation? A

* See and insert from verse 24 to 29 of the 28 Chapter of Isaiah.

A We all admit the knowledge of the existence & perfections, of the Deity to be from Revelation. It is I believe equally true that ~~all~~ the elements or first principles of all our agricultural, mechanical & domestic knowledge, as also all our forms of ~~Go~~ civil Government were from the same source. ~~Man with the~~ was taught by his maker to make the first knife of Clay tho he ever wore.

It is ~~I believe~~ further highly probable, ~~that the~~ manner of preparing his aliment by means of fire, so as to make it more pleasant & nutritious was communicated by revelation and that without it, he and his posterity would have been as deficient in the knowledge of Cookery as the brute creation. ‡

It is not necessary to suppose that he was instructed in all the details of this useful art. As the knowledge of the four & twenty letters of the alphabet ~~as which~~ ~~was it~~ has enabled men to compose words and languages, so a knowledge of a few primary articles of ~~the elements of the~~ aliment and of the manner of preparing ~~it~~ them, has led to ~~extend~~ ~~many~~ ~~the hundred discoveries upon of his~~ many hundred additions and discoveries upon this subject. V

~~I Habit~~

Man is the creature of habit with respect to his food, as much as he ~~is to lodgin~~ with respect to climate. As he was intended to live in every part of the Globe, he is happily accommodated by the nature of his appetite and ~~his propensity~~ constitution to live upon aliment varied by ~~in~~ its ~~nature~~ origin, preparation and mixture into an immense variety of ways. Hence ~~he is~~ he has been called an omnivorous Animal, to distinguish him from those Animals, that live exclusively ~~on chiefly~~ upon flesh, grass ~~and~~ or grain. There is no vegetable food of any beast, or bird but what he has eaten, ~~food~~ even ~~proposed~~ such as are ~~rejected~~ rejected by other Animals, have been

V preferred by him as articles of nourishment.

VI hence there scarcely exists a ~~bee~~ quadruped, a bird, fish, ~~scorpion~~ insect, worm or serpent that has not furnished not only food, but a luxury in some ~~age or~~ country or age of the world.

6.2

The flesh of the horse, the ass - the dog, and ~~many whole~~ ~~Raw flesh and fish, the blood~~ the blood of the goat have all com=
=posed a part of the food of ~~all~~ many different nations. Part of those articles of food have ~~been~~ afforded him not only nourishment, but a feast in their putrid state. Of this there are some remarkable instances mentioned in the transactions of the Society of Philadelphians which flourished some years ago at ~~Philadelphia~~ The same versatility of appetite and dis=
=position to habit, appear in the facility with which ~~man species~~ he accommodates his taste to different kinds of ~~vegetable~~ animal food. Of this, history and travels furnish us

V pleasure and nourishment to the ~~to~~ appetite and body of man when taken without the least mixture of any other article of diet.

with many remarkable instances. ~~While~~
But it belongs to the appetite ~~of man to~~ influence of habit upon the
and constitution of man to ~~desire~~
~~be gratified exclusively by an man to~~
impart
pleasure and health from ~~not only~~ a Diet
~~animal~~ not only exclusively ~~animal~~
~~or~~ vegetable or animal, but from ~~in~~ many single
articles in those kingdoms of nature.
Of the former, ~~these have been~~ travellers
~~this bassora~~ ~~the flesh of the horse~~, the
tell us ~~fish~~, - ~~the flesh of the dog or~~
Rice - beans ~~the~~
~~buffaloes~~ dates - gum Arabic, and ~~wan~~
~~flesh of~~ and of the latter, fish, &
Cucumbers; ~~Dying a bat cochin time~~
the flesh of the horse, the Ass, the Bear and
~~of the jackal~~ the buffaloe have all afforded ~~not only an~~ V
However powerfully habit may act
in these cases in perverting the original
instincts of nature, and substituting an
artificial appetite in their room, there
can be no doubt but ~~that man was~~ that

~~intended to live and upon some Aliments~~
~~are more calculated to afford pleasure &~~
~~health to man than others, and that~~
man ~~as~~ was intended to live upon a mixture
of ~~an~~ vegetable and animal ~~and~~ food,
and that certain articles of both were
selected in a more peculiar manner
~~for~~ his use, ~~as~~ being more easily
obtained, and more calculated to afford
~~please~~ him pleasure & health than
others. —

That man was designed to live
upon a mixture of vegetable and animal food is
obvious, 1 from ~~an~~ his instinctive relish for them.
2 from the structure of his teeth, and of
his alimentary canal, both of which
are formed upon the compound prin-
-ciples of Granivorous & Carnivorous

V From the greater, health, strength and longevity of individuals and nations who live upon a mixture of vegetable and animal food.

4

animals.

3 From a diet consisting of ~~either~~ but one of them ~~producing bad bro~~ being ~~up~~ un-friendly to health, and longevity. ~~than a diet~~ of this it would be easy to produce many proofs. ~~the evidence~~ vegetable aliment alone disposes to ~~stomach~~ & bowel complaints, ~~&c~~ to the diseases which arise from a want of ~~off exposes to accompany diseases which arise~~ strength proportioned to labor, ~~from a want of strength~~, & to premature old age and death, while a diet consisting ex==chusively of animal food, disposes to malignant fevers - Scurvy, and eruptions on the skin. ~~and~~

5 Lastly, ~~it is obvious from~~ These suggestions of reason and experience in favor of a diet consisting of a mixture of vegetable and animal food are ~~considered as~~ sanctioned by ~~Revelations~~ positive commands, ~~as~~ as

One of the ~~The~~ final causes of probably was, had man lived on Vegetables only, it would have required ~~more~~ a greater quantity & longer time to fill his belly than was compatible with his duties in life. + His ~~It gives~~ ~~appetite~~ for flesh serves the first the purpose of ~~to~~ upholding the ~~man~~ life of Animals. –

+ This is the case with all herbivorous Animals –

well as by the
~~the old and new testament and by the~~
examples of ~~the~~ all the wise and good
men whose lives ~~and lives~~ are recorded
in ~~these~~ the old & new testaments. ✓
Let it not be supposed there is any
cruelty in ~~these~~ the governor of the
world in permitting the life of one
animal to be supported by the death
of another. The command to "slay &
eat" like every other Divine command is the
effect of overflowing goodness, for by
the ~~death~~ constant destruction of every
animal that supplies us with food,
room is given for the existence of
more ~~who~~ that come forward & partake of
the blessing of life. It is by this means
that the various species of animals have
been preserved alive to this day, for had

not their increase been ~~beyond~~ limited by their partial destruction, they must all have perished in consequence of the present ~~imperfect cultivation~~ scanty productions of the earth, from the want of subsistence long ago. If all the domestic animals alone which have existed within the last hundred years are taken into consideration, the number of them almost exceeds calculation, and yet no one of these would ever have seen the sun, or partaken of those animal pleasures which they probably enjoy in a much higher degree than the human species, ~~and~~ which constitute ~~with~~ them a degree of happiness proportioned to the absence of other pleasures. Unless the ancestors of

Strangers to ~~the nature~~ its nature, ~~its fear~~

and Consequences, and of Course

to its fear;

those animals ~~have~~ had composed a part of the food of man. But further, the destruction of animals by the knife, or in any other way, prevents death from ~~death~~ disease. It likewise prevents their ~~miseries~~ suffering the miseries of old age, for in that helpless stage of life, they can have no ~~help~~ aid, nor ~~support~~ support like the ~~[illegible]~~ human species from affectionate and interested relations and friends. From this ~~ignorance~~ inability ~~[illegible]~~, ~~they are strangers to the fear of death~~ ~~they are probably ignorant of its nature~~, ~~have the base~~ ~~fear~~ ~~this inability~~ to draw inferences from the death of other animals so as to apply it to themselves, they are probably ~~[illegible]~~ ~~[illegible]~~ have the base which is exposed ~~more~~ to ~~[illegible]~~ frequently to death from the number of its enemies is the

V It is from this ~~want of~~ inability to remember the ~~circumstances~~ means or instincts ~~which~~ ~~produce~~ of death in other animals, ~~attend their passage of this fellow-beings out of the world~~ that they ~~are to~~ do not destroy themselves. Under all their complicated sufferings from the neglect and cruelty of man, they never resort to suicide for deliverance from them. ~~to the crime of suicide~~

V that we seldom tread upon the earth after a shower of rain, or inhale the air, or swallow certain liquids without Des= =troying the lives of many of them, ~~from old~~ ~~tions~~ of guilt? to all of whom life is probably as precious and ~~as full of~~ ~~as much feeling~~ ~~and suffers as much in dying~~ more full of enjoyment than the ~~the~~ Domestic animals that are the objects of our misplaced Compassion.

most playful of all Animals. The lamb too from the same cause, is "— pleased to the last, & hence he crops ~~its flowery~~ his food, "and licks the hand just raised to shed ~~his~~ his blood. Even while Animals are dying, it is probable they are not conscious that their ~~pains or~~ loss of blood is a previous step to the loss of their existence. ~~They~~ In most cases I believe ~~it~~ death creeps upon them with the gentleness, and perhaps with the pleasant sensations of sleep. —

Were it necessary to ~~urge further~~ oppose any more arguments to the cross, and morbid sensibility of mind which object to taking away the life of ~~an~~ innocent Animals in order to gratify the appetite, and nourish our bodies, it might be added that we live necessarily in a constant state of war with thousands of Animals, and ~~in~~

V This stimulus acts by its weight, or by distending the stomach, ~~and~~ or by ~~its~~ an ~~acrid~~ active or pungent quality inherent in it in which case it ~~to~~ ~~and~~ 2 by the facility, or difficulty with which they are digested, and the prompt or gradual manner in which they yield their nourishing matter to the body. It is,

~~to~~ ~~It is~~ not necessary for aliment to digest speedily in order to support ~~the~~ strength and life. On the contrary there are cases to be mentioned hereafter in which aliments should be preferred from ~~the slow its~~ this difficulty of digestion, and the slow manner in which they pass out of the stomach.

ii Sugar occupies the first grade in this scale of nourishing matter - viz the next, and mucilage the lowest. Aliments =

Aliments of all kinds ~~act in three ways~~ support animal life in the following ~~by two~~ ~~in two~~ Ways. ~~By~~ 1 ~~Directly~~ by their stimulus independantly of their nourishing qualities, imparted to the whole System through the medium of ~~the organs of taste & the~~ the Stomach.

~~2 By~~ ~~indirectly by~~ the quantity of nourishment ~~they~~ contain, and by the greater or less facility with which ~~this~~ nourishment is extracted from Aliment ~~and~~ by the powers of the Stomach, and converted into animal matter.

~~All~~ Aliments ~~of~~ ~~act~~ derive their nourishing qualities ~~in proportion~~ from their containing more or less of the following substances ~~in the quantity of the~~ substances ~~contained~~ in them. ~~And in the order in which they are mentioned.~~ Sugar & Oil & Gelatin, Gluten - Starch - Gum - ~~and~~ ~~albumen~~ ~~&~~ mucilage. ~~They~~ are said to contain in addition to those substances calcareous earth & ~~some~~ Carbon each of which it is said contributes in

~~V beside of animalizing matter & oil the~~

~~water~~

V They contain likewise and ~~an~~ alka-
-line & muriatic salts - a principle of
rancidity and putrefaction and a quantity
of air, ~~which~~ [from which]

in certain degree to form their nourishing qualities. ~~I began occupied the first grade in this & that the order of in which they ought to be placed is not known.~~

~~It will be impossible to classify~~ by ~~these~~ The stimulating - nourishing, ~~&~~ & indigestible di-gestible Qualities of Aliments ~~for these~~ are so mixed, ~~or~~ so much influenced by their mode of preparation, or by ~~the~~ age, and the state of the stomach of the persons who feed upon them, that it will be impossible to class them, in giving a history of their relative fitness for the support of animal life. - ~~The~~ ~~cost are~~ ~~the~~ Aliments ~~which are by their structure impaired~~ I shall therefore occasionally mention all, or a part of these Qualities, by the terms that have been mentioned, and apply them to circumstances, & to the ~~case~~ ages and ~~habits~~ constitutions of different classes of people. —

— and which induces in it what has been called the pancreatic fermentation.

The vegetables which constitute the nourishment of man have been divided into grains - roots - seeds - ~~fruits~~ nuts fruits - potherbs and sallads. —

The grains most commonly employed as aliment in the United States are Wheat, Indian Corn, Rye, Rye - Barley - ~~Rice~~ - and Oats.

Wheat is used chiefly in the form of biscuit and bread. The former requires more mastication than the latter, by which means it is not only more divided, but carries more of the saliva into the stomach and thereby facilitates its digestion. It imparts more strength to the body than leavened bread.

Bread is made with flour and water, leavened ~~elevated~~ by means of fixed air conveyed into them from yeast, or any other matter that contains it. — It contains a

great quantity of gelatinous matter upon which its nourishing qualities chiefly depend. It is most wholsome when taken cold. Fresh or hot bread, is ~~more~~ difficult of digestion, and according to Linnaeus is injurious to the teeth.

It is sometimes made with milk instead of water, and eggs, sugar, honey and butter are occasionally added to the flower of which it is composed, but all these additions detract more or less from its wholsome qualities as a daily article of food. That bread is best, which is ~~not too much baked, that~~ made of full ripe wheat. ~~that~~ of fresh flower - that is ~~[illegible]~~ sufficiently

elevated, or fermented – that is well baked, that is neither moist, nor dry, and that has neither a sour ~~sour~~ taste, nor smell.

Rye affords a bread, less disposed to become dry than wheat, very nourishing, and disposed to move the bowels gently, especially when it is not very finely bolted. A pleasant bread is made of equal parts of Rye and wheat flower. ~~The~~ Rye flower when boiled with water forms an excellent Aliment called mush which is ~~salu~~ ~~pleasant~~ both salutary and agreeable to invalids ~~tak~~ taken with milk, or with a little butter and sugar, or molasses.

Indian Corn is a wholsome & very nutritious grain. It is used when green, ~~in the fog~~ roasted or boiled upon the Cob, or grated

very fine, and baked with cream or milk into a pudding, and afterwards mixed with a little butter & salt. The Indians in this country mix equal parts of the green Indian corn dried by means of heat, and maple sugar together, ~~and~~ in which state ~~they~~ they preserve it for years. They generally ~~eat it~~ prepare it for food by boiling it in water, but ~~cut it mixed with a little~~ ~~boil~~ ~~cold water~~ when they go to war, ~~and~~ ~~at home they boil it~~ they mix it with cold water, and use it ~~in a liquid~~ as a drink. —

Indian corn is ~~used~~ prepared likewise for ~~in the green~~ food by having its husk taken from it ~~to in which state it is~~ ~~called~~ and afterwards boiled ~~with sweet~~ in milk or with meat. In this state is is called Hommony. It is called small hommony when the

a light and ~~pleasant~~ wholesome gruel for invalids is obtained ~~from~~ by boiling the flinty part of the corn in water, and afterwards straining it, and making it pleasantly ~~a mixture with~~ adding to it a little sugar ~~or~~ wine, or lime juice. It is less nourishing ~~yet~~ than the farina of the corn. Excellent ~~Buckwheat cakes for Buckwheat~~ cakes resembling in their appearance Buck wheat cakes, but of a more nourishing quality are made by mixing four parts of Indian flour with one of wheat flour, and adding a little yeast to them in order to raise or lighten them. They are afterwards baked, and eaten like buckwheat cakes.

grains of Corn are broken in preparing it. It is further, ~~made into~~ when reduced to a fine powder made into what is called Pone - Johnny Cake, and a mush pudding, ~~that~~ all which form an agreeable & wholsome aliment. Persons who feed upon this grain in any of the ways it is prepared are capable of ~~great labor~~ greater persevearance in labor than persons who live ~~from the use of~~ upon any other grain. An excellent ~~Rice is a singular and pleasant~~ bread is made of equal parts of wheat and Indian Corn flower. It retains its moisture longer than wheat bread alone, and it is gently opening to the bowels. — V

V It is much improved by previously grinding the rice into a coarse powder.

[illegible] [illegible] [illegible] to [illegible].

Rice is a wholesome & ~~agreeable aliment~~ nourishing grain. Whole nations live upon it. ~~It is~~ When boiled in milk it forms a ~~used in puddings, and boiled with~~ pleasant aliment for children. It makes an agreeable pudding when mixed with milk and eggs. Raisons are sometimes added to this pudding, but a handful of dried peaches imparts a more ~~agreeable~~ pleasant taste to it. It is sometimes ~~used~~ boiled & used in its simple state, ~~instead of~~ with meat instead of bread. It forms a useful ingredient in both, and ~~it is~~ a pleasant drink for sick people labouring under relaxed bowels when boiled in water. It is rendered more useful for this purpose when moderately ~~That is it was~~ The grains of Rice roasted. are sometimes reduced to a fine powder

V a pleasant bread may be made of Rice by ~~and~~ mixing it with potatoes, or by adding a 5th part of Wheat ~~to~~ flour to it. The latter addition with a little yeast forms a cake superior when eaten with butter to the Buck Wheat Cake.

by first boiling them, and then pouring off the water in which they are boiled, & afterwards placing the vessel well covered over a slow fire. The small portion of water which they retain is by this means ~~converting~~ converted into vapor, which divides and ~~reduces~~ pulverizes the grain. ~~to~~ ~~It is~~ In this state it is eaten with milk, or with a little butter & sugar.

~~Barley is rarely used~~ There is not the least foundation for the opinion that Rice is injurious to the eye sight.

Barley is seldom used in bread. It is a pleasant ingredient in broth: ~~whether whole,~~ ~~or broke~~ Its use ~~not~~ in making beer shall be mentioned hereafter.

Oats is used in this Country ~~as aliment~~ for sick people only & in the form of gruel, ~~It is lly light, easy of digestion~~

The meal of
Buck wheat is used in this country only in Cakes
with butter. It is in this form
~~and~~ moderately nourishing, and
when not overloaded with Butter
easy of digestion. Mr Barrow
says the Chinese ~~make~~ make use of a paste ~~from~~
prepared from it which is as white
as snow.

It is happily fitted for this purpose from its being easy of digestion & affording but little nourishment. When infused in water and suffered to stand till it becomes sour, and then strained and evaporated, the residuum forms that aliment which is called Sowens. It is cooling, and pleasant eaten with milk, or with sugar and butter. V

The Roots most commonly in use as aliments in the ~~United~~ States are the potatoe, turnip, the carrot, parsnip, beet, and onions. ~~in a given quantity~~ The potatoe contains one third of the nutritious matter of wheat bread in a given quantity of each of them. It is ~~mild~~ a pleasant and wholsome vegetable. It is eaten boiled, and roasted. ~~When too~~ It improves ~~the taste and~~ the wholsome qualities of wheat, whether made into ~~bread~~ bread or cakes, ~~bread~~, and renders the paste

The potatoe may be preserved in long Voyages and in hot climates by being previously heated in an oven to such a degree ~~only~~ as to destroy its principle of Vegetation. when pared, and cut into small peices and eaten raw, with Vinegar, it has ~~been~~ found an effectual remedy in curing the Scurvy. [the Indian or sweet potatoe
See another prep.n of it - see p: 249 of common place book 1809] ~~It makes a pleasant soup when 3 parts of it are boiled with one of onions and a little bread. It must afterwards be~~

of ~~a~~ an apple dumblin or pudding, when mixed with an equal quantity of wheat flowers, ~~light~~, spongy, light, and easy of digestion. Sir John Sinclair directs them to be prepared for food by being first half boiled, and then roasted, or by being first scraped so as to open a communication through parts of the skin and the external air, then boiled in a little less water than will cover them, and afterwards exposed to a gentle heat until ~~they are completely~~ all the moisture ~~they~~ was evaporated from them. He directs further and for an obvious reason, that potatoes of the same size only should be boiled together. V

Turnips are less nourishing than the potatoes, but when roasted or boiled

They are deprived ~~by~~ of their bitter taste by first ~~boiling~~ infusing them for two or three hours in cold water, and paring away a larger portion of the skin that is commonly done in the ordinary way of ~~drying~~ cooking them

~~Strained and eaten with a little toasted bread after being first made savoury with a little salt.~~

constitute an agreeable & wholsome aliment.

Parsnips Carrots & beets contain more ~~nou~~ nutriment than the potatoe or the turnip in a given quantity. This has been decided by an experiment with respect to two of those vegetables. Two pigs of the same age were weighed on a certain day. The one was fed upon parsnips, and the other upon potatoes. At the end of a month, the one that was fed upon parsnips had gained several ounces more of weight than the one that was fed upon potatoes. [All the roots mentioned under this head re= =quire the long application of heat to render them ready of digestion.] The parsnip is much improved in its ~~ge~~ taste, and wholsome qualities by being placed a few

the addition of salt or
savoury ley, boiling a piece of salted
meat in them. This consistence may
be varied by the greater or less quantity
of water in which they are boiled.
A piece of soft bread boiled in them renders them more
~~palatable~~ grateful to some stomachs &
helps to give them the consistence of
soups. They are eaten with Dry bread.
They are rendered more nourishing by a
~~in some cases~~ a little butter ~~may~~
being ~~be~~ thrown into them, or an egg
well beaten up in the water ~~the~~ boiled in them.

minutes in a frying pan or upon a grid-iron over a hot fire, after it is sufficiently boiled.

Onions ~~belong also to the roots~~ afford but a moderate portion of nourishment, but by their stimulus they impart strength to the body. They are excellent articles of diet for laborers. From ~~from~~ the longer operation of their cordial qualities ~~they~~ upon the body they are ~~supply cost for~~ preferable to spirits which are too often resorted to by that class of people. They constituted a principal part of the aliment of the children of Israel while they resided in the hot and enervating climate of Egypt. They form a necessary part of all the vegetable soups. One 3rd of onions imparts to potatoes, Barley, squashes, frase-beans the flavor of animal broths. They are ~~It is~~ rendered ~~still more~~

VI The disagreeable smell which the asparagus imparts to the Urine, & which is an objection in some people to eating it, is completely obviated by taking a pill or two of ~~which~~ what are called the tears of turpentine ~~[illegible]~~. which ooze from pine boards when exposed to the heat of the sun. a few drops of the spirit of turpentine would answer the same purpose.

VII whole nations have made ~~them~~ the beans a principal part of their food. It is was a common article of diet among the Jews. the Romans were much attached to them. The Chinese make a bread of them by first pounding or grinding them, and then ~~mixing~~ stirring them ~~the coarse powder thus~~ ~~obtained~~ with water. the water is poured off while impregnated with the powder of the beans, and ~~[illegible]~~ suffered to stand till it deposits ~~this~~ powder. The water is =

~~of the seeds peas~~ Peas & beans ~~constitute~~ compose the principal classes of aliments that are taken from the seeds. ~~They require to be well boiled in order to be nourishing, and easy of digestion.~~ The pea when dried ~~in it~~ and preserved in its green state retains during the Autumn & winter a good deal of its pleasant taste. When boiled in milk & water with a little flour & fatt, and a slice of bread ~~is~~ it forms an agreeable vegetable broth. ~~when dried~~ In its dry state, it is an excellent ingredient in soup. The different kinds of beans are used in the same way ~~and~~

~~The preparations of~~ Of the potherbs, Spinach, Asparagus, ~~&~~ and the different kinds of Cabbage, are chiefly employed as articles of diet in the United States. ~~The last is offensive to the stomach~~ It is to

then poured off, and the ~~water~~ sediment when dry is seasoned ~~raw~~ with a little salt, and cut and eaten as bread.

~~All the vegetables that have been mentioned are easy of digestion in you should be well boiled in~~ ~~to a paste.~~

There has been a good deal of controversy upon the manner of preparing all the vegetables that have been mentioned for the table. It may be settled in a few words. When vegetables are well boiled they are most easily digested, and of course are most fit in that state for persons who lead sedentary or easy lives. But unless they partake of the action of the fire, the less easily they are digested, and of course the more fit they are for men who labour for their subsistence. By lying long in the stomach they stimulate the whole body & keep off hunger. Half baked bread is often eaten by the peasants in Russia, and half boiled potatoes are eaten by the poor people of Ireland for this purpose. The Russians imitate ~~this~~ this practice in

be regretted that ~~the root~~ Cabbage which is so gene=
=rally agreeable to the taste, is so often of=
=fensive to the Stomach. It is best so
when it is raised in poor ground, and
after it has been exposed ~~a few weeks~~ to
~~the~~ frosts of November or December.+ ~~It has~~
Its offensive qualities to the Stomach are lite=
=wise much lessened by boiling it by itself for
a short time, or by suffering it to infuse
for ~~two or~~ twelve or fifteen hours in water
a little below the boiling point. There is a
wholsome Aliment prepared from Cabbage
called Sour=Crout.+ and now preserved also
bruised by salt & drying the.

= feeding their horses & cattle. When they wish to fatten them, they ~~give them~~ boil the roots & grain they give them, but when they wish to derive the greatest advantage from their labor, they give both in a crude state.

~~They have been divided into such as are acid - as the citron & citronat - the lemon & lemonat - the citron & lemon contain a mixture of saccharine matter with an acid as the orange, the apple, the pear and the peach - the plum & the cherry, the strawberry - the grape, the mulberry - the gooseberry &c -~~

They are acid as the citron & lemon; sweet as the oranges, apples & certain kinds of plums; a compound of acid, and saccharine matter as the cherry & the strawberry; a compound of saccharine matter & water as the melon; - a compound of saccharine and astringent matter as the quince & the persimmon, and oily as the walnut, almond - the cocoa - and the hicory nut. They are all varnishing in proportion to the quantity of sugar & oil they contain.

The ~~fruits~~ United States abound with most of the fruits of ~~middle and northern~~ all the climates in the world. From the profusion of other aliments ~~they~~ Fruits are used chiefly as articles of luxury in the United States. ~~They abound in saline matter, and contain when perfectly ripe, and not keptile a good deal of amusements~~ ~~Intoxication begins in these~~ ~~They~~ ~~are~~ ~~wanderingly~~ ~~occasioning, and yet~~ When taken in moderate quantities they do not disorder the stomach or bowels. To ascribe to ~~the~~ any part of them the diseases of summer or Autumn when taken perfectly ripe, and in a sound state, is as absurd as to ascribe the yellow fever, to the ships which arrive ~~in our~~ from the West Indies in our

Vi: the strawberry requires sugar,
~~Vi~~ ~~those~~ Some of the melons require
pepper and salt, and the Cucumber
requires ~~pepper~~ pepper, salt, Vinegar and Oil to render
them agreeable to the Appetite, and easy
of digestion.

Should be eaten before Dinner

Vi Some of them retain ~~a great deal of their~~
flavour when preserved in sugar
and spirits, as the strawberry, and
the peach, while others of

filthy harbours in the months of August and September. The Coincidence of Disease with these supposed Causes, is ~~altogether~~ ~~this~~ ~~the heaviest fruits and the arrival of things is~~ accidental in both Cases. Instead of abstaining from fruits ~~these are wholesome, they should be taken~~ from a dread of their creating Diseases, they should be taken to prevent them. They obtund acid bile, and discharge it gently from the bowels, and thus lessen the heat of the body in Summer. ~~They~~ Some of the fruits ~~these~~ retain their qualities when Dried. This is the Case with the Apple and the peach. ~~Some of~~ them afford a Juice from which a Wine is Obtained. ~~This~~ The Currant & the Rhesberry are oftnest used for this purpose. ~~While~~ Others the acid and sweet fruits are rendered less fermentable by being baked, or by ~~being in~~ by being mixed with milk-cream Sugar, or ~~boiling them~~ old Wine.

The Salads are likewise rather articles of luxury than of aliment. They do not require ~~the cooking of salads~~, they ~~are not subjected to~~ the action of fire ~~before they~~ to render them agreeable. The common Salads are endive, ~~the~~ cold slaw, Dandelion, Sassafras grass, and Celery belong to this class of substances employed in diet. They require certain additions as vinegar, pepper, and mustard to render them palatable and stimulating to the stomach. They contain but little nourishment.

Among the profusion of the alimentary aliments in our Country that have been mentioned nuts are seldom employed as articles of diet. The Walnut - the almond - the filbert, hazel nut - the ~~filbert~~ hickory nut, or shell bark ~~&~~ the Chesnut compose a part of the Dessert, after our meals. They are ~~now~~ two

Chocolate forms a pleasant nourish=
=ment either boiled in water, or
eaten by itself. ~~which~~ ~~The~~ almonds
~~possess~~ ~~afford~~ when blanched, that is
deprived of their ~~bitt~~ skin by being infused in hot water,
then bruised
with loaf sugar and mixed with warm
water, afford that pleasant bland liquor
called almond milk, which has often
been prescribed with success in pulmonary
consumption. It may be used as a sub=
=stitute for cream or milk with tea &
Coffee. ~~or for~~

nourishing to be taken in large quantities in this way. From a single hickory nut one half of which I once obtained thirty drops of oil; nor pressed between two pieces of hot iron, oil we know occupies the second grade in the articles ~~of~~ which afford nourishment to the body. The Chesnut when dried, makes an excellent ingredient in Soup. When eaten soon after they fall from the tree, they are said to affect the head. ~~with~~ Dr Cabanis says a priest in France informed him, that the members of his parish were instructed with more difficulty at the time they fed upon raw and ~~so~~ newly collected Chesnuts than at any other time. Dr Hoffman has remarked that Dysenteries are most common where people feed chiefly upon nuts. The Cocoa ~~nu~~ when mixed with flower, ~~all sort~~ or sugar ~~and~~ butter into what is called V

Aviat.

v or terrestial - Aquatic - & amphibi=
animals,
= ous also insects & worms.

Animal food includes quadrupeds, and birds (Domestic and wild) ~~fish~~ fish, shell-fish and scaley — & certain amphibious animals, insects & worms. ~~and fish~~ They are mentioned in the order in which they are arranged.

The domestic quadrupeds most commonly used in diet in this country are the ox, sheep, & hog. The wild quadrupeds are chiefly the deer, the hare and the squirrel, & the rabbit, which afford aliment to the inhabitants of the United States.

The domestic birds are the fowl, the turkey, the goose, the duck and the tame pidgeon.

The wild birds are the wild turkey — the wild goose — the wild duck — the wild pidgeon — the pheasant, the partridge — the grouse — the plover — the reed bird and a few more not worth enumerating.

The amphibious animals which occasionally ~~administer food to our~~ covers our tables are the turtle, and the frog. The former is eaten in soup. The hind legs of the

~~I have divided fish into those that live~~

~~Fish include those~~

~~Under this~~ the head of fish I shall include ~~the oyster~~ ~~the~~ the Lobster, the Crab, the Oyster & the Clam, as well as the fish that swim in the water. They differ in their qualities according as they are taken in fresh or salt water. The ~~latter~~ former are more easy of digestion than the latter. They differ further according as they are taken in ~~running~~ or stagnating water. The latter are less digestible than the former. ~~In point of solubility in the stomach, and nourishing qualities, they possess an intermediate degree between vegetables and animals.~~ ~~and so~~ Whole nations have lived chiefly upon them. In countries near the poles they supply the scanty ~~pro~~ vegetable productions of the earth, and ~~the~~ in tropical climates they afford an aliment ~~is suited to the~~ procured with but little labor, and of course suited to the

indolence which heat induces upon the body.
They form an intermediate aliment be-
-twen Vegetables and land Animals. ~~being~~
~~more digestable & nourishing than~~ They are
more nourishing than the former, and less
so than the latter, hence they are prescribed
to invalids, and to convalescents from acute
diseases. The shell fish contain less nourish-
-ment than the scale fish or those that swim. Lobsters and
Crabs ~~resemble~~ are less nourishing than
Oysters and Clams. It is a custom of the
~~Most~~ Christian Church to enjoin the use
of fish alone ~~as~~ with vegetables as a diet
during the season of ~~Lent~~ which includes
forty days ~~during~~ of the spring months. This
institution is a truly wise one, and should
have been retained by those sects that
separated themselves from the Church of
Rome. Its advantages are 1 it reduces the
quantity of nourishment taken into the

18.3

body, and consequently lessens plethora and the predisposition to inflammatory diseases at a season when they are most apt to prevail. ~~2 It does~~ It has this effect not only from the less quantity of nourishment conveyed into the body, but from the diminution of appetite which the same food taken for a long time generally creates, and 2 It relieves us from the necessity of feeding upon land animals ~~when they a~~ at a time when they are propagating their species, and of course ~~unfit~~ ~~unfit~~ ~~unfit~~ when they are ~~unfit~~ less proper for Aliment.

The Amphibious Animals which occasionally cover our tables are the turtle & the frog. The former is eaten in Soups. The hind legs of the latter only are eaten. They ~~afford but little nourishment~~, are pleasant ~~vehi~~ vehicles for the seasoning that is used with them, for they afford but little nourishment.

latter only are eaten. They are considered as a highly delicious ~~dish~~ food. —

Happily for the ~~inhabitants~~ citizens of the United States, the ample supply which it hath pleased a bountiful Providence to afford them, of the numerous ~~and~~ and pleasant articles of food which have been mentioned does not render it necessary to have recourse to the insects or worms of our country for sub=sistence. —

I shall take notice of fish as an aliment after delivering some general remarks upon the ~~relative to~~ relative salubrity of the ~~modes of preparing, preserving, and the various~~ to preserving, and the quali: ties of land animals that have been mentioned, ~~and upon~~ ~~and upon the relative salubrity of~~ and upon their relative salubrity and upon the manner of preparing and preserving them. —

The ~~solubility~~ stimulus of animal food and its solubility in the stomach, ~~and~~ also its subsequent nourishing and wholesome qualities depend upon the following circumstances.

1 The sex of an animal. The females of all animals are more tender, and easier of digestion than the males. ~~Ani=mals that have lost their visility are~~

~~libers~~

2 ~~Animals~~ that have lost their visility are easier of digestion that ~~there that that~~

2 The state of an animal with respect to visility. Oxen, wethers, and capons are easier of digestion than the bull, the ram and the cock. –

3 The age of an animal. Adult ani=mals are more stimulating, & digestible and afford more nourishment ~~easy of digestion~~ than young animals. Beef and mutton are in their most perfect state when

v ~~no difference fish~~ - There is no difference ~~with respect to its~~ between young and old fish, with respect to its digestible & nourishing qualities.

vi every part of its flesh, more to them its heart liver, kidneys, and intestines. The brain, fat and lungs afford but little nourishment.

Birds predilection - has Oyster Fine claws
Defect. · Roman Eagle

they are about five years old. Old beef may be distinguished from ~~young~~ that which is young, by its fat being diffused alike through every part of its flesh, whereas in young beef the fat ~~is less~~ is more confined to particular places. ✓

4 Upon the class, and species of Animals. Wild animals are more easy of digestion, than Domestic; ~~the turkey and the fowl~~ Beef and mutton are digested more easily than pork, and the turkey & fowl more easily than the goose, and the Duck.

5 Upon the ~~time and manner in~~ parts of animals which are the objects of aliment. The ~~leg~~ Loin of Beef is more digestible than other parts of its flesh, & ✓ the legs of ~~birds domestic~~ wild birds are more easily digested than their wings from being less braced by constant exercise.

6 The time and manner in which Animals are prepared for the Slaughter house. Animals that are fattened gradually, and that partake of exercise afford a more ~~capacity of digestion~~ of strengthening Aliments than Animals that are stall fed, and fattened suddenly. The ~~superior~~ excellency of the Irish beef depends upon its feeding for two years in pasture where they have plenty of food, and room to exercise their limbs before they are killed. ~~They are~~ All animals are most wholsome when their food is most abundant. ~~The~~ Pork is insipid in Summer, compared with what is in the Autumn when those fruits and nuts abound upon which it delights to feed. ~~The bird~~ ~~Animals~~ afford food ~~the best wholsome~~ food during ~~the~~ time in

v aliment in wet than in dry seasons, ~~the sheep, the more~~ sheep thrive most in dry weather, ~~delicious the condition in all lean=~~ ~~tons~~, provided ~~it does~~ there be rain enough to ~~prevent~~ keep up the vegetation of the grass.

11 Sheep that have lived upon moun=
=tains ~~are~~ afford a more ~~much~~ ~~unpalatable~~ strengthening Ali=
=ment than those that live upon plains. This flesh is improved by their greater exercise, and by breathing mountain air.

~~which propagate their Species~~

upon the season in which they are killed. All animals are ~~less wholesome~~ more or less unwholesome in the Spring at which time they propagate their Species. ~~than in the winter, and~~ They are ~~wonderful~~ less wholesome likewise in the Autumn ~~than~~ than in the winter from the influence of ~~the~~ summer heats upon their blood and flesh. mutton is less fitted for nourishment upon the place in which they have been ~~fed~~ fattened. Animals that have fed during the summer ~~up~~ or meadows in marshes, are often affected with obstructions & Abscesses in their livers from the same kind of exhalations which produce bilious diseases in the human Species. Animals fed upon the grass

and grain which are forced by the ma=
=nure of large cities, are less fitted for food
than those which ~~as~~ derive their flesh
& fat from the pasture and grain ~~that~~ of
ground that has not ~~been~~ not felt the ~~manured~~.
influence of stable manure.

9 Upon the exercise they undergo previously
to being killed. The quicker ~~John~~ digestion of
wild, than domestic Animals is occasioned
~~upon~~ by their being more exercised in run=
=ning & flying. Art has imitated Nature
by introducing the practices of bull baiting,
cock fighting and the chase in order to pro=
=duce a similar tenderness in the flesh
of domestic Animals. a fowl is ~~thereby~~
~~more~~ rendered more digestible when
chased for some time before he is killed.
The flesh by these exercises, ~~or~~ requires

V 60 upon the food upon which Ani=
=mals have been fed previously to
their killed. The hog affords a more
wholsome aliment when he feeds upon
acorns, and grain, than when is fatted
by the Swill and offals of a kitchen.
The flesh of the deer in England is pre=
=ferred to the flesh of the wild deer in
America from its feeding upon the Thyme
which grows in the parks in which
they are kept. They best in dry seasons and when
they feed upon short sheep. —

the black color from which wild animals have obtained the name of black meats. From the quick digestion of wild flesh, and the ~~debility~~ speedy return of appetite and debility afterwards, the ~~in~~ settlers in new countries complain of an inability to work when fed upon it, and soon call for the flesh of domestic animals which by its longer duration in the stomach keeps up a more strength and excitement in the system. V

~~[2. Upon the quantity of fat they contain. The lean parts of fat animals is more nourishing than the lean parts of such as are lean.]~~

1. Upon the manner in which they are killed. The more suddenly life is

Ohen

This remark extends to fish as well as to land animals, and hence fishermen often ~~pulp~~ break the heads of fish as soon as they come out of the water, and thus prevent the injuries which their flesh sustains by their ~~struggles~~ convulsive motions when they are thrown upon the ground.

extinguished in them, the less disposed they are to a rapid solution in the Stomach.

To this general rule there is one exception. Dr Franklin ~~found the~~ has taught us by a number of experiments that Animals killed by strokes of Electricity are easier of digestion than Animals killed in any other way.

The less blood is drawn from Animals in taking away their lives, the sooner ~~they~~ their flesh passes out of the Stomach. To prevent a mistake in judging of this fact, it will be necessary to add that fat Animals ~~when~~ which ~~killed~~ become suddenly fat, contain less blood than ~~lean~~ such as are lean, and of course pour forth less from their blood vessels when they are killed.

12 Upon ~~this~~ the quantity of fat they contain. The lean parts of fat Animals,

~~of~~ all animals is more nourishing than the lean, but it is more slowly digested. For this reason pork is preferred by labourers to beef and mutton. It affords most stomachs by its longer confinement in the stomach, and most nourishment from its larger quantity of ~~fat~~ fat.

11 Fish likewise, from ~~the~~ its rapid tendency to putrefaction, should be eaten as soon as possible after they are taken out of the water.

‡ animals that are bled plentifully when they are killed, are less disposed to putrefaction, than those that are not. This is the case, with fish as well as land animals. ~~The taste and wholes~~ The former are rendered more simple and wholsome, ~~food in warm~~ ~~weather~~ when ~~killed~~ thus bled to death.

is more easily digested than the lean parts of such as are destitute of fat. The fat of ~~the fat of~~

13 Upon the time in which they are kept after being killed. ~~their being~~ ~~longer or shorter times~~ The longer meat is kept before it is eaten, the more readily it digests. To this there are a few exceptions. The pig, the goose & the duck should always be eaten ~~on the day~~ within four or five & twenty hours (according to the state of the weather) after they are killed. The flesh of animals that have been kept for several days without food before they are killed, keeps much longer without being tain=tad, than the flesh of animals that are killed with full bellies. ~~Poultry keeps~~ The flesh of poultry keeps longest when their entrails are extracted from them. ~~The flesh~~ It is, by this means, ~~is~~ preserved from a disagree=able ~~taint~~

1

v4 By the complete exclusion of the Air. A sea Captain informed me that he buried a leg of mutton in the middle of a barrel of flour in Philadel-phia, and took it out three weeks afterward in a sound state ~~After a Voyage of three weeks to the~~ Island of Barbadoes.

5 By ~~wrapping it up~~ covering it com-pletely with the powder of Charcoal.

6 ~~The late Dr Chovet while he resided in Jamaica introduced the following method of~~ By sprinking it with Salt. Meat preserved in this way is said to be corned. The late Dr Chovet while he resided in Jamaica applied the Salt in the following manner. He ~~killed~~ ~~The blood~~ ~~It animal by opening~~ drew all the blood out of the body of the animal by opening the Carotid Ar-tery. As soon as ~~the Animal~~ it was dead, he poured by means of a pipe a strong solution of Salt & water for ~~an~~ two or three days into the blood-vessels through the opening made in the Carotid Artery.

which it derives from the contents of the bowels. We may always know when a poultry are upon the eve of putrefaction, and ~~apoplexy~~ consequently most fit for the Spit, by the relaxation of the Spincter of the Anus, in which Case there is an aperture of that extremity of the intestines. ~~There~~ There are several Ways of preserving meat in its fresh State in warm weather. These are, by placing it in an ice house, or surrounding it with ice in a ~~cool vault~~, ~~a~~ Cool Cellar. –

2 By suspending it in a dry & cool well.

3 By keeping in a Cool and dry Cellar which is ventilated by a Chimney.

4 By infusing it about a foot below the Surface of cold ~~water~~ Spring water. It will be most safe in the cold water

By burying it
~~upon its being buried~~ one or two feet in
the earth. -

of a ~~sp~~ spring or milk house. ~~Meat with Bay~~ This mode of ~~a week or~~ preserving meat was discovered by the late Dr Edwards. It will retain all its sound and wholsome qualities for eight, ~~or~~ & ten days in this situation in the months of July & August. It contracts a pale color in the water, but when a knife is thrust into it, ~~the~~ blood follows it as if it had been recently killed. It should always be ~~dress~~ cooked as ~~soon as~~ soon as possible after it is taken out of the water. ✓

19 It is said flesh putrefies sooner when exposed to the light, even of the moon than in a dark place. I would rather suppose the influence of moonlight upon the animals before they were

killed disposed this flesh to a more speedy putrefaction than by any effect upon it afterwards. What makes this probable is that Crabs & Oysters are larger & fatter during the full moon than at any other time. — Perhaps the influence of moonlight upon flesh has been assumed without sufficient examination, from its exhibiting animalcules sooner during moonlight than at other times, and that in consequence of those animals being allured by the light, to deposit their eggs upon it.

Thunder and lightning certainly hasten the putrefaction of flesh, and as there are no means of obviating its effects, it will be necessary to use it as soon as possible after it has felt this influence. —

Meat when but little tainted, may be restored by infusing it in Lime water, or wrapping it up in the powder of Charcoal. — The lime water is most certain in producing this effect upon fish.

✓ It is by previously pounding raw flesh that the French Cooks prepare it for the pot, and the Spit.

a note from on Digestion

+

I return

13 Upon its being pounded or beaten before it is cooked. Sir John Pringle found that flesh ~~meat~~ when beaten in water, putrefied in half the time that meat does that is left to itself in a quiet state. ~~Now~~ The ~~rapidity with~~ rapidity with ~~which this juice~~ which meat digests in the stomach is in proportion to the rapidity with which it putrefies out of the body.

14 Upon ~~the~~ its being thoroughly ~~done~~ done. The opinion of half done, or half cooked meat being ~~more easy~~ easiest of digestion, ~~these the~~ has been repeated by a number of experiments made by Dr Stevens of St Croix and published by him in his inaugural dissertation in Edin.

15 Upon its being thoroughly masticated. This has likewise been proved by experiment by Dr Stevens. Where this cannot be done from ~~decay of teeth, or from~~ the want of teeth, the meat should be previously minced or cut into small peices. The connection of sound

~~[illegible] as it lies in the [illegible]~~

and which after all I believe is never ~~cab~~ able to extract all its nourishing qualities from it. ~~wild~~ Wild beasts are said to owe their strength to eating raw flesh. Perhaps they ~~raw~~ eat & digest raw flesh because they are strong. The same reasonings apply here that were applied to the cooking of vegetables.

tuth with health, and the means of preserving them shall ~~soon~~ be taken notice of hereafter.

The ~~salubrity of animal food, and the~~ greater or less facility with which animal food is digested and converted into nourishment, is much influenced by the manner in which it is prepared.

Raw flesh affords more strength & nourishment to ~~wild~~ beasts of prey, ~~strength to the body~~ than flesh which has undergone ~~by~~ the action of fire, from the ability of their stomachs to extract ~~more wild~~ all its nutritious qualities. ~~The strength of animals that live upon it~~ does not ~~appear~~ follow from these. But it is ~~not so obvious that it~~ that it ~~appears~~ ~~much~~ affords as much nourishment to the human species, as meat that has been cooked. ~~Even~~ The strength it ~~gives~~ imparts to man is the effect of its ~~quick~~ stimulus ~~on~~ from its ~~slow~~ digestion in the stomach; I shall in another place distinguish between the ~~indirect~~ direct strength which is imparted to the body by stimulating aliment, and the indirect strength which it receives from aliment after it is converted into blood & nourishment.

a note

+ The Barley broth is made according to Sir John Sinclair by boiling a teacup full of Barley for half an hour in a gallon of water - then add - three pounds of lean Beef, or a neck of mutton, with carrots or turnips and onions cut into small pieces, and a pound of green peas when they are in season, and let them boil gently for two hours. ~~with a~~ a little Salt must be added afterwards.

Vekelecky is made by boiling an old ~~fowl~~ Cock or fowl, with a piece of beef, ~~some herbs~~ leeks & Dried ~~a~~ ~~approved~~ ~~some~~ prunes ~~for~~ some time in ~~water~~ ~~in~~ the usual quantity of Water, and for the usual time, & afterwards the usual quantity of Salt.

Soup Grasse is made by boiling five pounds of beef ~~in~~ gently for four hours in a gallon of water to half a gallon with onions, Cabbage, Carrots, and as much Salt as will render it agreeable.

Flesh is prepared for food,
1 by being boiled in water with certain
additions of vegetables & condiments, &c
thus made into Soups or Broths. ~~The Great~~ many
nations in the world have prepared
~~the~~ flesh prepared for food in ~~this~~
way. The Spartans had their black
broth, the Scotch have their barley
broth, and Cockaleekey, and the French
their bouillon grape. ~~& Soup Maigres~~ These
excellent liquors should always compose
the first dish of every temperate family.
They not only afford ~~bad~~ a great deal of
nourishment, but they serve ~~to~~ by
~~allaying the first~~ damping the appetite to
prevent excess in partaking of subsequent
dishes. They are most salutary and
agreeable when made by placing

+ Gosney vols

the meat with its vegetables & seasoning over a slow fire well covered, ~~with~~ and in water which should be kept for four hours a few degrees below the ~~point~~ boiling point agreeably to the advice of Count Rumford. In this way we obtain the juices of the meat with but little of its fat. ~~The fat should be made to rise to the surface of the water just by~~ Just before the pot is taken off the fire the water should be made to boil for a few minutes in order to throw the fat to its surface. This fat is then skimmed off, and the broth becomes fit for use. The meat from which the broth is made is sometimes so much exhausted of its nourishment as to be incapable of ~~undergoing~~ putrefaction. — There is another mode of obtaining ~~a By boiling~~ Roasting. ~~meat thus prepared is meat~~ = ing the juices of meat, and

That is cutting a ~~piece~~ pound or more of meat from which the fat has been seperated, into small peices and putting them in a bottle or jug well corked ~~&~~ with a rag tied over the cork, and then putting it in to a ~~bot~~ pot of water which is gradually heated, and then boiled for four or five hours. Brown a pound of beef or mutton half a pint of liquor is thus obtained. When seasoned properly, it makes a pleasant and very nutritious Article of liquid Aliment.

2 Roasted meat is ~~necessary~~ both soluble in the stomach, & nourishing from its particles being confined by the crust being formed over it by means of the fire. The fibres of the meat are softened by the action of the fire upon ~~the~~ ~~get~~ its juices.

3 Broiled meat is ~~[illegible]~~ nearly the same in its qualities as roasted meat. ~~The more intense the heat over which the meat is placed whether on a gridiron, or live coals, the~~ What are called *steaks* are prepared in this way. ~~The~~ By contracting the surface of the meat by means of a quick or intense heat, ~~the~~ its juices ~~of~~ are confined, and the meat becomes more nourishing. The seiners in Cornwall prepare their steaks by placing them upon the smooth surface of large blocks of tin in the instant of their passing from a ~~solid~~ fluid to a solid state. The lower part of the meat is ~~to~~ thus ~~thus~~ so hardened, ~~by the intensity of the heat, that~~ ~~by the only~~ that all its juices are retained, and the ~~meat~~ taste ~~thereby rendered more tender easy of digestion~~ and nourishing qualities of the meat

4 By being half boiled, & then cut into steaks and broiled. Mutton is ~~much improved in tenderness~~ rendered more tender & savoury when cooked in this way.

5 By boiling. ~~when fish is~~ a considerable portion of the nutritious matter of meat is lost by this mode of preparing it for aliment. It is in this state suited to convalescents from fever, & to persons of feverish habits. Mutton is most wholsome when cooked in this way, and so are (contrary to common opinion) Geese and ducks. The water dissipates the oily parts from them, and thus renders them a milder, and more digestible aliment for weak stomach. Fish by throwing off a portion of its oil in boiling becomes more easy of digestion than when when cooked ~~the~~

thereby increased.

By Frying. The butter, oil, lard, or bacon grease in which meat is usually fryed is often so much altered in its qualities by the fire as to render the meat prepared in this manner less ~~agreeable and~~ easy of digestion than meat prepared in any of the ways that have been mentioned. — Fish is generally cooked in this way. —

By means of Vapor. The meat prepared in this way is placed upon a stand in a pot which is closely covered. This pot is placed over a fire with a small quantity of water in it. The ~~heat of the~~ fire converts this water into vapor which by its intense heat, ~~cooks~~ renders the meat ~~into a pleasant and~~ nourishing, and easy of digestion.

in any other way. We may always know, when fish ~~has~~ is boiled enough when it floats upon the surface ~~upon~~ of the water. It sinks a second time when it is boiled too much. | I shall mention hereafter the ~~condiments that are~~ matters that are mixed with it in order to render it palatable after it has undergone the action of fire. +

8. By baking. Meat thus prepared retains its juices, but its surface is often so hard=
=ened by the fire as to be unpleasant to the taste. When baked with other ~~dishes~~ articles of food it is apt to contract ~~the~~ a taste from each of them.

9 By being made into what are called stews or stashes with ~~cut~~ bread, and certain vegeta=
=bles. Meat is agreeable & nourishing when prepared in this way. Mutton half roasted and then made into a hash, Dr Franklin used to say was the most agreeable mode of preparing that kind of flesh for the table.

10 By being baked, or boiled in a paste made of flour & butter in which state they are called meat and pot pies. The meat thus prepared is softened by the fire, and retains with its jui=
=ces a great deal of nourishment. The

and slowness of digestion.

paste is rendered more digestible by the mixture of an equal quantity of potatoes with the flour. —

11 By being ~~dried in~~ exposed for several months to the action of smoke. The salt contained in the smoke resists the tendency of flesh to putrefaction, while its dependant bituation discharges its juices which like-wise helps to prevent its putrefying. ~~It~~ Beef and certain fish are prepared in this way for aliment. They stimulate the stomach, ~~contain but little nourishing, but they are~~ but they are hard of digestion, and ~~conveys~~ convey but little nourishment into the body. They are prefered by labourers from their difficulty

12 By being exposed to the action of the sun. Stock fish is prepared for food in this manner.

13 By being infused in ~~being~~ Vinegar. ~~in~~ Shad ~~is salmon~~ Salmon and Oysters are prepared for the table in this way.

They lose a portion of their nutritious matter in the Vinegar, and they ~~set~~ ~~difficult of solution in~~ pass off slowly from the stomach.

~~Occasional~~ It is often necessary to preserve Animal food for months in order to be used in situations and seasons in which it cannot be procured in a fresh state. ~~as~~ The means of doing this are

1 By Common Salt. This is the most universal preservative of ~~meat~~ flesh of all kinds. To be effectual, it should ~~not penetrate the meat~~ be applied in such quantities as to penetrate ~~the~~ its interior juices, ~~after~~ for if a small quantity ~~only~~ be applied, ~~it~~ the salt acts only upon the surface of the meat, and by hardening it, confines ~~the~~ its juices, and thus ~~dis~~ accelerates, instead of retarding ~~the~~

v Salted meat ~~and fish are~~ is less nour=
=ishing than fresh.

~~#~~ 2 By sugar and molasses. ~~They~~ ~~Their has~~
~~powdery~~ ~~are too expensive to be~~ for ~~common~~
~~use.~~ The efficacy of these articles in
preserving flesh has been proved by
several experiments made by Sir
John Pringle. They are too expensive
for common use.

its putrefaction. ~~of the~~ The addition of nitre to the salt improves its antiseptic qualities, and gives a more agreeable flavor & color to the meat. The sooner these salts are applied, after the ~~death of~~ is killed the Animal the better. Captain Forrest in his voyages to several of the Islands in the East Indies advises cutting out the bones of meat, more especially of pork before it is salted, for putrefaction he observed always began first ~~at~~ near the bone when it was salted in the common way, in consequence of ~~the~~ its not being penetrated by the salt and oozing out a fresh malter which putrefied, and con-laminated the contiguous flesh. ✓

3 By the heat of the Sun. The Indians cut their Venison & Buffalo meats ~~meats~~ into small peices and hang it up upon sticks paised through them in the air. The moisture is by this means

dispipated from there, and thus putrefaction prevented. A Sea Captain informed me that he had in this manner preserved the freshness of meat at sea. ~~He had it boiled~~ He ate it as he wanted it made into Soup. The Shark fish I have said is preserved in this way.

4 By freezing. Flesh is preserved in cold Countries entirely in this way during the winter. It ~~then~~ is thawed by being immersed in drecipive quantities of cold water. When thawed in warm water, it loses a good deal of its savoury ~~taste~~ taste.

5 By smoke. ~~Hams are preserved~~ Beef, hams, and several kinds of fish are preserved in this way after being salted. ~~which~~ They are afterwards subjected to the action of fire before they are eaten. ~~Then~~ The smoke which is applied to

Hams is not always sufficient to preserve them from putrefaction. They have therefore, when taken from the smoke house, been buried in ~~sand~~ bran, ashes, ~~to~~ or dry sand for that purpose, but often without ~~success~~ effect. Greater success has attended burying them in cut straw, ~~and~~ or tying them up seperately in bags made of coarse linen, and hanging them with their small ends downwards in a cool dry cellar.

6 By being boiled until the ~~great~~ imparts all its enriching qualities to water, and then reducing ~~this water~~ it to a thick consistence by boiling it a second time. The matter thus obtained, has been called patent soup. It is dissolved in boiling water ~~and~~ ~~[illegible]~~ so as to form a liquid soup, when it is required for use.

V most agreeable article of aliment,
and well accommodated to ~~the~~ all
~~the climate~~ with ~~with~~
seasons
ages ~~of the~~ and countries. ~~a~~ ~~the hardships~~
& honey were the only articles of diet in
~~of a camp life were endured for forty~~
~~years by the children of Israel~~ ~~had~~
held out to the children of Israel to
reconcile them to the privations of a
Camp life for forty years in a wilder-
-ness, and to allure them to the promised
land. ~~of Canaan, which was said to~~
~~flow with thou delicious Aliments~~

There are besides the vegetable & Animal aliments that have been enumerated. ~~several~~ ~~Other~~ two substances relative to both which ~~which~~ constitute a ~~large~~ large portion of the food of man. These are milk & eggs, ~~tea~~ ~~Coffee and Chocolate, upon which~~ of

I shall make a few remarks upon each of them.

Milk ~~Abounds in~~ contains but little stimulus, abounds in nourishing matter, and is of easy digestion. It is a

It is composed of three parts, into which it separates spontaneously when left to itself - these are, butter - cheese & whey. The butter is of a vegetable nature, the Cheese partakes of the qualities of animal food - the whey is nothing but water with a portion of saccharine matter

or baked with both into puddings.

It forms a pleasant desert when made into what is called Junket by means of a piece of Runnet, or by adding ~~a little wine~~ two table spoons full of a Quart of Wine into which a whole runnet has been infused, to half a Gallon of milk. -

There is an agreable article of diet of diet prepared from milk ~~a pleasant substitute for butter~~ which is used by the Germans in Pennsylvania called ~~Sma~~ Smear: - case. It is made by ~~boiling~~ placing milk before the fire until it forms a coagulum. The whey is strained from it and to the remaining curd an equal quantity of Cream is added. Over this mixture is sprinkled a little pepper and salt. It is ~~spread~~ eaten upon bread instead of butter. ~~It~~ It is least offensive to stomachs disposed to acidity when taken without being skimmed. The ~~butter~~ Cream blunts the acid ~~which~~ whether it preexists in the stomach, or ~~is~~ be formed by the decomposition of the milk.

It is obtained from many

~~dissolved in it~~. ~~The Butter~~ is nourishing animals, but that which is use in our country ~~in the second degree~~. ~~from the quantity of~~ is obtained only from the cow. This ~~Nourishment contained in butter it~~ ~~should be eaten in moderate quantities in~~

Milk ~~takes~~ is usually eaten by itself, or mixed with bread, or with raw, or baked, or preserved fruits, or roasted, or mush, or it is boiled with flour or rice, potatoes, ~~afford~~ ~~many nations feed upon it chiefly~~

It is sometimes preferred ~~in~~ after it has become sour, ~~undergone its spontaneous decomposition~~ in which state ~~it is acid~~, ~~and~~ is called Bonne Clabber. The warm weather it is most agreeable as well as most salutary when taken in this way as it serves to obviate the tendency of the system to that state which predisposes to fevers. Mr Eaton in his survey of the Turkish Empire speaks in high terms of an ~~acid~~ aliment prepared from milk rendered pleasantly acid by means of a ferment, which the

Turks call Yroust or Leben.

~~Butter~~ milk is composed of three parts
viz Butter - Cheese and ~~Chees~~ Whey. They seperate
into these parts spontaneously, or they
are seperated ~~by~~ into them by means of
Art. The butter possesses all the common
properties of a vegetable Oil. It is formed
from the Cream which rises to the surface
of milk after it has stood for some time,
by Churning. The more completely the
cheesy and watery parts of the milk, are
pressed out of the butter, the less disposed
it is to become rancid. By repeated wash-
ing ~~the~~ in water, this rancidity may be
removed, for the parts which putrify, are
soluble in water. It is nourishing, but
cannot be taken in large quantity without
offending the stomach. It is said to be

+ "Sunt mihi poma, parsique copia lactis." Virgil

Gold in the morning, Silver at noon, & lead at night from which it may be inferred that it ~~cannot be~~ requires the vigor which the system possesses during the day, to digest it. It is never eaten alone but ~~[illegible]~~ with bread, - or ~~[illegible]~~ with other aliments. When ~~[illegible]~~ dissolved, or baked, it is more difficult of digestion than when taken in its ~~[illegible]~~ solid state.

Cheese is the animal part of milk, and contains more nourishment than Butter. When ~~[illegible]~~ ~~[illegible]~~ the same ~~of it~~ quantity of it may be taken daily as of meat. By age it acquires ~~[illegible]~~ a pungent taste which renders it more proper for what ~~I shall~~ is called a Condiment, ~~[illegible]~~ of which I shall treat ~~[illegible]~~ in the next Chapter. It is eaten only with bread, or with certain raw fruits. The Romans ate it with apples.

The whey of milk contains a small portion of Sacharine matter dissolved in water. It is a pleasant aliment for invalids and Convalescents from acute diseases, taken by itself or eaten with bread. —

~~to~~ much of the ~~lat~~ healthy and useful qualities of Milk, and of its products depend upon the ~~cows~~ ~~food~~ aliment, and the treatment of the Cow. ~~The~~ The former should be cuculent, and nourishing; the should ~~be this~~ have room to exercise herself in walking, and where this is not practicable, she should be rubbed down (to use the hostler's phrase) ~~in the~~ every morning and evening. The milk is not only increased by these means in ~~its~~ quantity, but much improved in its qualities.

and by the ~~an~~ increase of the cavity in which the air is contained. They are eaten raw, or heated up ~~by~~ in water, wine, spirit, and hyson tea. ~~in all which mixtures they afford a good deal of nourishment~~. They form an excellent substitute for cream when heated up with any of the ~~China~~ India teas. They afford most nourishment when ~~to~~ taken in this way, but they are less digestible, than when ~~they have~~ ~~been been~~ partaken of the action of fire by broiling, or poaching,

Eggs constitute a considerable part of the food of the inhabitants of many countries. They are, like milk, of a compound ~~vegetable & animal nature~~ nature. The white of ~~the egg is of the~~ ~~belongs to the~~ it possesses vegetable, and the yolk animal properties. ~~They are hard~~ ~~digest~~ ~~crude~~ ~~digestible~~ ~~sooner~~ ~~digested sooner~~ ~~under equal circumstances than the former~~ ~~for~~ ~~which~~ ~~alone~~ ~~without its white~~ ~~for weak stomachs~~ ~~We may always know when an egg is~~ ~~larger~~ ~~sound~~ ~~by~~ ~~from its~~ ~~imparting~~ ~~a sensation of~~ ~~a moderate heat to the tongue~~ ~~They are~~ ~~eaten be prepared for food in their simple~~ ~~state by boiling~~ ~~or~~ ~~by being mixed with~~ ~~into custards or with~~ ~~milk, flour or rice~~ ~~the~~ ~~the like~~ ~~into puddings~~ ~~They are cooked in a heat below the boiling point~~ ~~and~~ ~~when they are~~ ~~are~~ ~~retain a liquid state~~ ~~They are best~~ ~~may be prepared~~ ~~Dissing~~ ~~being~~ ~~Veggies by being covered with tallow or~~

Eggs constitute a considerable part of the food of the inhabitants of many countries. They are, like milk, of a compound nature. The white of the egg is vegetable, and the yolk animal properties. They are hard digestible, and the latter perhaps sooner digested sooner than the former, on which alone it is sometimes prescribed for weak stomachs. We may always know when an egg is sound by its imparting a sensation of a moderate heat to the tongue, or by being mixed with milk, flour or rice into puddings. They should be cooked in a heat below the boiling point, when they are retain a liquid state. They are best preserved by being covered with tallow or

~~Bees Wax first melted, and applied over them by means of a feather.~~ For this purpose ~~they~~ the liquor in which they are to be placed after previously of water boiling, may stand ~~upon a~~ upon a table or at a distance from the fire. They should be taken out of the water as soon as the heat pervades every part of ~~it~~ them in which state, the whole egg is alike soft and easy of digestion. Eggs may be preserved during long sea voyages by being covered with tallow or bees wax first melted, and applied over them by means of a feather.

Of Condiments.

The same bountiful Creator who added the pleasures of music to the common & necessary uses of the ear, and of Colors to the common & necessary uses of the eye, hath ~~added~~ ~~increased the pleasures of taste by~~ furnishing us with certain substances to be mixed with, or added to our aliments, which are intended to promote health by increasing the pleasures of taste.

They have been divided into saline, sweet - oily, mucilaginous & gelatinous - Aromatic ~~fatty and resinous~~ and acid. -

They act in the ~~four~~ following ways. 1 They stimulate the tongue agreeably, and thus add to the pleasure of eating. 2 They stimulate the salivary glands & thus increase the quantity of saliva, & ~~thus~~ assist digestion.

3 They stimulate the stomach, and

V 7 It is possible some of them may by combining with Aliment cause them to evolve a greater quantity of nourish-
-ing that is ~~usually~~ extracted from it by the common powers of diges-
-tion.

We reason ~~for~~ incorrectly when we suppose that / This depends upon the greater dissolving power of the ~~juices of~~ the animal juices of the stomach to enables them to extract the whole of the alimentary matter from the great. It does not afford the gastric juice in the human stomach

No 25

Perhaps we mistake the effect for ye cause in carnal criminals. May lie ~~they~~ it may be their strength and their to die & not the flesh strength.

thus increase the secretion of gastric juice, & thereby facilitate digestion. They likewise increase the activity of the stomach, and enable it more easily to throw the aliment when digested, through the pylorus into the bowels. —

4 They produce ~~strength~~ excitement and strength throughout the whole system, from its sympathy with the sense of taste & the stomach, ~~&~~

5 Some of them retard digestion, ~~this is by~~ and in so doing they perpetuate the influence of aliment in the stomach in imparting vigor to the whole system. They likewise prevent in this way the frequent recurrence of hunger at times & in situations in which it is not convenient or practicable to gratify it. —

6 Some of them ~~and~~ convey nourishment into the body. V

V dle read of its being ~~its~~ being sprinkled upon
~~that~~ those parts of the sacrifices which were eaten by
the priests under the Levitical law in order to
render them palatable & wholsome. It is so
essential in diet in some countries, that it
is common to denote the whole of a man's
subsistence by the word Salt alone, as we do
by the word bread. ~~Alone~~. Thus in some
parts of India a man who is supported by
the bounty of a friend is said "to owe his
Salt to him". The same expression is used in
Holland in speaking of a ~~speaking~~ of a depen-
-dant who is fed by the hand of charity. Even
among the Romans it was considered so im-
-portant a part of diet, that when a man
received an office from the Government he
was supposed to receive the means of purcha-
-sing his salt. - hence the origin of the word
Salary, from ~~the word~~ Sal, ~~or~~ which signifies
Salt. These facts are mentioned to show that
the use of Salt is nearly as universal as bread,
and almost as necessary for the subsistence of man.

The saline Condiments are chiefly com=
=mon Salt and Aids.

The use of common salt with Ani=
=mal ~~and~~ food, and with certain Vegeta=
=bles is ancient and Universal. ~~In a small quantity~~ It ~~increases the digestion~~ promotes the dissolution of ~~the food~~ fresh meat in the Stomach, ~~and in a~~ but ~~when it p~~ it retards the digestion of salted meat. ~~that has been preserved by it~~. It is for this reason that ~~it~~ the latter is prepared by Sailors, Soldiers & Labourers. By its Durable Stimulus in the Stomach, it imparts Strength to the whole System. When used in excess, ~~or~~ without Vegeta=
=bles it brings on ~~an~~ several Diseases particularly the Scurvy. It is used not only in its simple State, but combined

V And with ~~contain the flesh of the~~ flesh in the form of ham - and what is called meats ~~to~~ that is ~~ox's~~ beef's tongue.

with of certain fish, as herring, sprat, mackrel, shad, oyster and anchovy, in which state it increases the appetite, ~~for and~~ as well as helps the digestion. It should be taken in larger quantities with fish, than with the flesh of land animals, upon the account of ~~the~~ its more rapid tendency to putrefaction in the stomach.

Of the acids ~~vinegar~~ vinegar is used chiefly as a condiment ~~and vinegar, lime and lemon juice~~ - Tamarind ~~tea and substances~~ in the United States, with all those vegetables impregnated with, and preserved by it which are known by the name of pickles. Much has been said against them ~~where said as in spoke of the oysters~~ in treatises upon the means of preserving health. When substituted for aliment, they are certainly hurtful,

and other Acids more expressly as a Condiment than any Nation in Europe.

Acid Condiments are useful in lessening the Viscidity of fish, and of young Animals. They likewise obviate flatulency, and hence their Utility in Salads of all kinds.

and particularly in bringing on diseases of the Stomach, but ~~when~~ when used sparingly, ~~and so~~ so as barely to ~~impart~~ be tasted in our food, they are, ~~not at all in~~ if not useful certainly inoffensive. Besides Vinegar, the juice of Lemons, limes, Tamarinds and the Tamarinds are sometimes employed as acid ~~and~~ Condiments. In Germany & France ~~they used~~ the juice of the grape before it is ripe, a little fermented, is used instead of the juice of those ~~two~~ tropical fruits. It is not ~~and~~ only acid, but gently astringent, and very grateful to the taste. ✓ The Germans use ~~vinegar &~~ Sugar - Honey - Liquorice ~~and various kinds~~ ~~more pleasant acids Condiments~~ and add to the nourishing qualities of Aliments as well as improve their taste. When

taken in a large quantity, they retard digestion, and finally impair the health of the stomach. The celebrated Mr Richard Baxter has left it upon record that his constitution was ruined when a boy by his mother feeding him upon sweet meats, or aliments overcharged with sugar. When taken fasting, it has been found to prevent and destroy worms in children. The oily condiments include the oil of olives & almonds - cream - butter, - and the fat of sundry animals as the hog, the sheep, the goose and several kinds of fish. They all facilitate the deglutition of the aliment with which they are mixed - they retard digestion, and hence the utility of one of them, that is butter with fish, and they are very nourishing. Dr Slack found by his experiments that the fat of those animals which are used in diet afforded

They are all unwholesome in a great degree, and when taken in large quantities they retard digestion, and weaken the stomach. -

three times as much nourishment as ~~their~~ the lean parts of this flesh. Pork is more nourishing than beef, only from its containing more fat.

The Condiments which are composed of the different preparations of milk are ~~cream~~ sweet cream, - inspissated milk, that is the ~~Cream~~ oily and cheesy parts of milk deprived of its whey - the curds of milk - melted butter - and all the different kinds of Cheese! ~~That~~ Of the ~~best~~ Cheeses, the Shapsaego and ~~the~~ old English Cheese are the most stimulating. They should therefore be taken in but small quantities. They are all apt to ~~create~~ induce Costiveness, and should be taken sparingly by persons who are subject to that state of the bowels.

There are certain substances of a gelatinous nature which are employed as condiments. These are chiefly the shavings of hartshorn - the Mucilla - Starch - ~~an~~ the whites of & yolk of ~~an~~ eggs, and the jelly obtained from calves feet and other animal substances. They serve to improve the taste of several articles of diet by purifying them, and mixed with aliments of all kinds, they are lubricating to the ~~throat~~ mouth and throat - and afford a ~~small~~ moderate degree of nourishment.

The alliaceous condiments are onions, leeks, garlic and chalots. They are used both raw, and after undergoing the action of the fire. A relish for them is the effect of habit, and hence like other things not originally agreeable to the senses of taste and smell, they take a stronger hold of the appetite than such articles as are originally agreeable. They are gently stimulating, for which reason they have been resorted to, to oppose the debilitating effects of heat and labor in all ages & in all countries. Sir William Temple says the pyramids of Egypt were built by them, that is the men who were employed in those stupendous monuments of human industry, they were enabled to sustain their toils by the strength they derived from those active

Condiments. The Jews while ~~prisoners~~ they lived in Egypt ~~in Darkness~~ were enabled to ~~bear the~~ perform the severe exactions of their task masters in a lot less by feeding upon the same Articles. It is to be lamented that they They are likewise moderately nourishing, and they retard the digestion of all the aliments that are taken with them. Asafoetida ~~belongs to this class of condiments~~.

~~Related to this allium~~ Condiments

~~is~~ The gum Asafoetida ~~contains~~ Acts chiefly by its stimulating power upon the ~~to~~ Sto=mach. It is ~~used principally by the~~ sometimes ~~used to with Beef~~ rubbed upon the gridiron, or upon the dish in which beef Steaks are placed. It is likewise used with some kinds of fish. ~~or~~ Grose ~~in his~~ speaks of a nation of India who abstain wholly from animal food, and fermented & spiritous liquors, that mix this condiment with all their

aliment. Their breath & perspiration he says smell of it.

It is somewhat remarkable that whole nations have been distinguished by their attachment to some one of the condiments that have been mentioned. The Germans prefer vinegar, - the French sugar, - the English butter, and the Spaniards onions, above all other condiments in their aliment. The Americans make use of them all.

The aromatic ~~and acid~~ condiments are very numerous. They are parsley - sage, thyme, sweet marjoram - Dill. Anised & fennel seed, tansy - nasturtium - saffron - cloves - mace, Cinnamon, nutmegs, and ~~and~~ some others. The Germans use a great quantity of the aromatic herbs with their aliments. The kitchen of Frederick the 2nd of Prussia was ~~so~~ so filled with bottles ~~bottles~~ containing them, that it resembled

They are particularly useful when mixed with what are called the cold fruits. They retard the ~~rapid~~ progress of a rapid putrefaction fish, and the mesh melon to

Recipe for Curry –

an apothecary's shop. They improve the ~~flavor~~ taste of aliment, increase the discharge of saliva, and help digestion by their stimulus upon the stomach. useful in West Indies - why?

The acrid condiments are chiefly allspice — black and cayenne pepper — capsicum, cu=
=bebs — cardamon ~~seeds~~ & coriander seeds — ginger mustard and horseradish. They are used ~~chiefly~~ with food that is ~~dif~~ hard of diges=
=tion both of a vegetable & animal na=
=ture. They stimulate the tongue, mouth, throat, fauces, do stomach, and through their nerves act powerfully in giving tone to the whole system.

All these condiments are generally ~~condiments~~ taken simply, but they are sometimes mixed. ~~as in Sofonages — sauces and sauces of~~ Thus acids and sugar are united in certain preserves, Butter and sugar in certain sauces, and

Salted meat - fat - pepper - and certain other Spices in Sausages. ——

~~Jce~~ To the Condiments that have been mentioned it remains only to add one which does not belong to any of the former heads, and that is Jce. It is used to ~~cool grounds~~ cool certain drinks and Aliments and ~~to~~ thus to improve this taste in warm weather. It is likewise used in Substance mixed with Creams. In this way it ~~It~~ is ~~cooling~~ grateful to the tongue, cooling in the mouth, and sedative ~~through~~ the medium of the stomach to the whole body. Jce Creams are generally taken with, or ~~unsafe upon an empty stomach~~ after other Articles of Diet, in ~~which~~ the latter case they are inoffensive, if ~~taken~~ eaten in a moderate quantity, but ~~when taken~~ upon an empty stomach, they are apt to create ~~spasms~~ Colic, Dysentery, and ~~coff~~ to become the exciting cause of fevers. ——

There are certain condiments which are used to improve the taste & stimu=
=lating qualities of the liquors we take with our food. These shall be taken notice off hereafter. —

~~Among~~ There are ~~three~~ two articles ~~of~~ which compose a part of the diet of the inhabitants of the United States, which though not ~~entitled to the~~ prepared for any nourishing qualities, yet from the matters that are mixed, ~~and~~ or taken with them, are entitled to a place in this history of aliments. They are Tea and Coffee. A Revolution has taken place in the ~~[illegible]~~ =~~[illegible]~~ diseases of Europe & America since the introduction of these Articles into general use. ~~They have~~ ~~Spread the consump=~~
=tion of

~~Procurial food and Ardent Spirits, but they have~~ They have transferred in many instances, the diseases of the blood vessels into the nerves. From the general use of tea, the Hysterical disease which was once confined to high life is now often seen in the kitchen, and in the huts of poor people. But let us state the facts fairly that relate to this subject. The most of the diseases which have been ascribed to tea and Coffee might perhaps be ascribed to their being taken too strong, or too often, or by themselves, without a due mixture of sugar & cream or milk, or bread and butter, with them whereby they are left to act with an undeluted force upon the nerves of

~~There are many articles of~~
the body. ~~There are many other this~~
~~articles diet which if taken without~~
~~the~~ Meat - cheese and butter if
taken ~~by themselves~~ in excessive quantities or without bread,
and many other articles of diet if
taken without this ~~usual~~ customary Accidents,
would be equally hurtful to the
stomach and the whole system with
tea and Coffee taken in excess or by themselves.
In their favor, let us recollect ~~that~~ how
much they have lessened the consumption of
animal food and ardent spirits, and ~~thereby~~
~~have~~ added to the flock of innocently ~~greatly to the pleasures of~~ social
~~life~~ and convivial pleasures. ~~A Glutton~~
~~and a Sot seldom sit down at a~~ fondness
for tea and Coffee and an undue Attachment
to the knife and fork, and the bottle

are rarely to be met with in the same person. From this gentle ~~agreeable~~ stimulus they are peculiarly agreeable & useful in the following states of the system.

~~from~~ 1 after great fatigue of body ~~and~~ or mind. From ~~the~~ the influence of Coffee upon the latter, it ~~has been~~ is called by the french "Poison intellectuel" or intellectual Drink.

2 After a full or oppressive meal. Coffee is usual resorted to by the french to relieve this oppression.

3 After intemperance in drinking.

4 After taking Opium. ~~It~~ Coffee is used with ~~by best~~ most success to remove the sickness and languor which sometimes follow the exhibition of that medicine.

5 In a depressed state of the mind from any cause.

6 In cases where wakefulness is required

either for study, or attendance upon sick people. They should be made a little stronger than usual for this purpose.

¶ In cases where it is necessary to resist moderate degrees of heat or cold. Tea revives both the body & mind when depressed by the heat of a long summer day, and Coffee fortifies the body against the ordinary cold of winter. I knew a ~~Country~~ physician who ~~drinking great doses~~ lessened his sufferings ~~made it a practice to drink it~~ from cold by drinking a pint of strong Coffee when he was obliged to expose himself ~~by~~ a long ride in the Country in ~~cold weather~~ ~~the winter months~~ cold weather.

The black teas, as they are called, particularly the Souchong are the

best for ~~daily use~~ breakfast. The more cordial teas are best ~~taken~~ calculated to restore the body and mind after the business of the day is over.

That Coffee is best which has been well dried by age, and moderately roasted. The Arabians and the Turks prefer it bruised, instead of being ground, before they boil it. It is most cordial when taken without sugar. The Turks use it only in this way. —

In treating of the
~~The~~ A salubrity, of Aliment ~~and drinks~~ ~~we~~
~~depends very~~ we must not pass over ~~the~~ in
silence the nature and Condition of the Vessels
in which they are preserved, and prepared for
use. They are preserved in a sound state in
wooden vessels provided pains are taken to keep
them clean, by washing and exposure to the
air. The vessels employed in Cooking, or
in subjecting food to the action of fire are
made of earth, and metals. ~~the common~~ Of the former,
~~earthen ware is not liable to be acted upon~~
~~by Acids nor Oils~~. Glass, and China ~~are~~ are
sometimes employed, but they ~~inoffensive to food~~ are too brittle and expensive
for this purpose. The common earthen
ware of our Country when properly made ~~in~~
should be preferred to them. ~~This and~~ The
preparation of lead which is mixed with it,
is not liable to be acted upon by Acid, nor
fat Substances. Of the metals, ~~Silver~~ Silver, tin, Copper,

it a portion of the Copper, or by ex-
-posing the Copper to the Action of the
Substances which dissolve it, ~~produce~~ renders
the persons who use it liable to ~~[illegible]~~ diseases
of the Stomach bowels and Nerves. ~~When~~
the hurtful effects of both tin and
~~[illegible]~~ ~~compelled by necessity to~~
Copper vessels are much alarmed by ~~[illegible]~~ not
~~[illegible]~~ permitting aliments to remain
in them after they are taken off the
fire, and ~~[illegible]~~ exposed to the Air. The in-
-fluence of the Air in aiding Oils & Acids to
act upon Copper is evident from those
parts of them ~~on~~ being most affected by the
~~Copper~~ which come into Contact at once
with the Air & the Copper. Simple water is
Vessels of Iron should be preferred to all other metals
for the purpose of Cooking. The parts of them which
are dissolved by ~~[illegible]~~ or Abraded by the matters
~~which~~ that are put into them are inoffensive, &
sometimes useful to the body. To obviate

~~Tinned~~ & Iron are sometimes employed in preparing food for the table. These silver ~~is too~~ less costly ~~so~~ it should not be ~~employed~~ used for the this purpose, for ~~with~~ the alloy ~~which~~ of Copper which is mixed with it, ~~it is~~ by dissolving ~~is soluble~~ in acids and oils, ~~and~~ has ~~is~~ renders it an unsafe implement of cookery. ~~Copper is usually employed with a thin covering of tin over it for culinary purposes, but the tin soon wears away, and by mixing with the food produces the diseases of the bowels~~ Stomach, bowels & nerves.

Tin when pure, is insoluble in ~~oils~~ acids & oils, but as it is ~~generally~~ sometimes mixed with more or less ~~tinnes~~ lead, Copper, or Arsenic (all of which are acted upon by both those substances) it should not be employed as a culinary vessel. It is least hurtful, or unsafe ~~when~~ used as a ~~tea~~ kettle. Copper is usually employed with a thin covering of tin over it for culinary purposes, but the tin, ~~when~~ admitting it to be pure, soon wears away, and by ~~mixing~~ carrying with

V

= the taste, or Dark Color which Iron
imparts to certain Articles, the inside
of them is sometimes lined with Lime.

~~which~~

It remains now to mention the liquors we take with our solid aliment. A relish for them, is an instinct of nature. They serve many valuable purposes in the body. They dilute to a certain and necessary degree, the saliva and gastric juice, ~~obviating and washing away out of the body, and~~ and thus aid them in dissolving the food. They ~~hasten~~ extend aliment, ~~in the first passages~~, or wash it out of the body through ~~the passages upward for it in~~ the kidneys or the pores of the skin, and such ~~bodily~~ ~~many of them~~ as are of a ~~nourishing~~ nourishing nature, ~~and~~ assist in the support of health and life.

~~Then~~ The liquids we take with our food are water - ~~Beer, wine & Cider and~~ fermented liquors and ardent Spirits.

Water ~~has been divided into spring, pump, and river or flowing water~~ from all its sources when alike ~~pure~~ pure, possesses the same qualities. It may be known to be pure from the facility with which it dissolves soaps, and boils vegetables - from its having no smell, and no peculiar taste, - from the difficulty with which it freezes, - from its being soon hot and soon cold, from the healthy ~~infals~~ inefs of the Animals that drink it, and ~~the~~ from the numbers of fish that swim in it, and from the verdure, & fertility of the shores that are washed by it. It is necessary to its ~~pu~~ being perfectly agreeable that it should contain ~~a~~ $\frac{1}{28}$ part of

Atmospheric Air and a cubic inch of Carbonic gas in a lb parts of the water. Boiling it deprives it of these Airs, and ren-=ders it less pleasant to the taste. It is from the want or deficiency of these Airs, that snow water is so insipid, though it possesses otherwise all the properties of pure water. Rain water is most pure in the Winter & Spring from the Air in those seasons being most free of exhalations and other foreign ~~the use and wings~~ of ~~insects~~ matters.

What are called hard waters are made so by the solution of certain salts, earths and metals in them. This is not the place to mention the means of detecting the presence of those matters, but it will not be foreign to the design of this work to remark that ~~many~~ many evils have been ascribed to ~~bleaches~~ them

than are just. where ~~they are~~ the water is not offen-
-sive to the taste ~~[illegible]~~ from any of its
mixtures, nor impregnated with putrid
matters such as the drainings from privies
and certain manufactures in large cities,
~~they~~ it seldom does any harm. It is certain
the gravel and stone are ~~seldom~~ not oftener met with
in Countries in which waters are drunken
that abound with Calcareous earths than
in Countries in which this is not the
case. ~~I [illegible] Happily for us habit~~
~~disarms~~ Should the saline-earthy or metallic substances that have
been mentioned which are contained in hard water, be originally offensive to
the system happily for us, the habit of using
it ~~so~~ after a while, deprives ~~them~~ it of
~~their~~ its hurtful qualities.

Water taken very cold, in a large
draught, when the body is heated by labor

~~is~~ produces many sudden deaths every year in the United States, and where this is not the case, it ~~has~~ often induces acute and Chronic diseases. To prevent these fatal and disastrous consequences from the drinking water ~~in the~~ under the circumstances that have been mentioned, let no cold water be drunken while the body is preternaturally heated, but if the intensity of thirst forbids the delay that is necessary for this purpose, let the vessel (provided it be made of ~~a~~ metallic or earthy matters) be grasped closely with both ~~the~~ hands for two or three minutes. ~~In portions of the heat~~ This practice will act in two ways. It will carry off a portion of the heat of the body,

and it will convey it into the water, and thus ~~before~~ remove ~~the~~ or lessen the danger of drinking it. ~~If~~ this direction should impose ~~lay~~ too long a restraint upon the thirst, let the hands and face, or feet, or all of them be washed with the cold water before it is tasted. A large portion of the heat of the body will thus be carried ~~out of it~~ off, and ~~the~~ the principal ~~of the~~ cause of the ~~fe~~ bad effects of the cold water by that means be obviated. ~~Unnoticed~~. It is because horses when heated by ~~labour~~ ~~or~~ travelling ~~the~~ stand in water ~~before they drink the~~ their feet in the streams of ~~water~~ into ~~water~~ which they pass before they drink, that they are never injured by it. ~~and it is from the~~ Pump water is equally inoffensive, ~~to~~ when drank by horses from the practice

of throwing buckets full of it over their bodies when over heated by labor & coupled with sweat previously ~~before~~

~~They are provoked to taste it.~~

It is a common mistake to suppose that ~~cold~~ water in order to allay thirst, ~~in warm~~ and cool the body in warm weather should be very cold. ~~It often~~ So far from having those effects, it often increases both heat and thirst. ~~The~~ Labor intelligent house Carpenter in Philad^a ~~has discovered~~ first found out ~~by body~~ and ~~the~~ experience ~~of learning from laborers~~ ~~has proved that~~ ~~confirmed his discovery~~ ~~labor~~ ~~best~~ most easily is sustained in the hottest weather by drinking water that has stood for some time in the sun, so as ~~to~~ acquire nearly the temperature of the air. ~~It~~ ~~It allays~~ By allaying thirst when ~~too~~ taken in

this way, ~~exists from~~ it saves much time ~~which~~ is often lost in walking or of the to a distant spring or pump for fresh supplies of cold water.

It is a common practice with some people to take a draught of cold water just before they go to bed, or as soon as they get up in the morning. This practice probably originated in intemperance, & has been ~~unoccasionally~~ ~~by imitation~~ adopted from ~~as~~ a ~~bel~~ belief ~~in being~~ that it conduces ~~of its conducing~~ to preserve health. The reverse of this ~~Lodg~~ is true. ~~It tends to debilitate the~~ It may be practised for years without producing ~~the~~ any bad effects, ~~stomach, and to lessen the appetite in the morning, & to induce dyes~~ but finally it has been found to debilitate the ~~stomach~~, and to impair the appetite and digestion. ~~It~~ ~~It may be practised~~

V water constituted the only Drink of the Roman Armies while traversing the hottest Countries; and by this & a cause to be mentioned hereafter they were preserved from all those diseases which afflict or destroy so great a proportion of the Armies of modern nations.

~~for years~~
~~without food incapable without producing~~
~~these effects for years, but few people fe-~~
~~-ably the stomach seldom fails~~

~~Water is sometimes~~

Certain ~~nutritious~~ matters are sometimes added to water such as milk - molasses - and vinegar, syrups of different kinds, and fixed air in ~~in order to render~~ what is called artificial Seltzer water. ~~it more exhilarating as a drink. They~~ They render it more pleasant, and add to those qualities in it which enable it to support animal life. Vinegar & V.

Simple as water appears to be, it contains some nourishment. This is inferred from life continuing much longer in Animals ~~that~~ have access to water, ~~than~~ without food, than in those that are deprived of both of them. -

~~Poets~~ Poets as well as physicians have lavished their praises upon this beverage

But loud and universal as the praises of water have been, it is not always the most proper drink with our meals. From its promoting the digestion of food more rapidly than any other liquor,+ it disposes to the frequent returns of appetite, and from its popping no stimulus, it prompts to take a greater quantity of food, than the system requires to supply its place. ~~For these reasons, and from the insipidity of water to the taste, other~~ It is from these effects of water that persons who drink it alone with their meals, have sometimes been remarked to be great feeders.+ For these reasons, and from the insipidity of water to the taste, other liquors have been resorted to as more salutary and agreeable.

+ This has been proved by many experiments.

of nature. It was the first drink of man, and it is preferred in infancy & childhood ~~now~~ to all other liquors. It is preferred likewise in all those states of the body in which violence has been done to nature, as in ~~fevers~~ extreme thirst, from labor, ~~and~~ or a fever, and after intoxication. ~~that these are habits that will for~~ the habits of civilized life have rendered other liquors more agreeable ~~to many~~ and ~~in many~~ instances some of them more salutary. ~~to many~~ These liquors are

+ a note

Dr Beattie mentions in one of his letters that he once dined with Dr Johnson at Sir Joshua Reynolds, and that he ate more meat ~~at~~ than he could eat in ten meals. Dr Johnson drank nothing but water.

fermented and distilled. The former include beer. Cyder - perry - and all the different kinds of Wine. The latter con=
=sist of ~~Rum~~ ardent spirits. I shall make a few remarks upon each of them.

All the grains called Cerealia afford by ~~malt~~ brewing - ~~an~~ malting - ~~a~~ brewing a fermented liquor known by the name of Beer, but the grain ~~and~~ most commonly used for this purpose is Barley. The Beer made from it con=
=tains a large quantity of saccharine matter and affords a good deal of nou=
=rishment. It is upon this account, meat and Drink to the poor people in some Countries. It is ~~to drain~~ an excellent

~~for~~ Drink for labourers, but too nourishing for persons who lead indolent and sedentary lives. ~~That kind of malt liquor which is called~~ Ale and Porter have several advantages over the common table beer in being more cordial, ~~&~~ stomachic, and in retaining their wholsome qualities in warm weather. They may be drank diluted with water during the hottest months, ~~&c~~ ~~or they may be exposed with from three to 4~~ one part of either of them may be mixed with 8 of water ~~and~~ half a pint of honey or treacle or half a pound of sugar and a little ginger, and put into bottles where it undergoes a fermentation & is fit for use in 24 hours.

Cyder contains a good deal of Sacha=
=rine matter blended with a pleasant
Acid, and diluted with water. It is
gently stimulating & nourishing ~~but~~
when mixed with water it makes
a pleasant Summer Drink. It has
been said to be hurtful to persons
predisposed to Gout & Rheumatism.
This probably depends upon its Acid,
~~which~~ for upon eating pickling acid
but iron in it which obtunds this
Acid, it is said not to ~~have the cure~~ cure those
~~ing~~ diseases, but to prevent them.
Two barrels of Cyder fresh from the press,
boiled into one
and kept in a Cool Cellar for
2 or three years make a pleasant

liquor which has obtained the name of Pomona Wine. It may be drank by itself, or diluted with water.

The Wine which is obtained from the grape has as many names as it has qualities & native countries, its kinds ~~as~~ ~~They~~ All contain more or less saccharine matter - an acid - a spirit - an unfermented matter called must, diluted with water. They are ~~have~~ ~~been divided into~~ strong - ~~sweet - acerb and acid. To the first belong~~ such as Sherry, Madeira, Sicilly - ~~Tea~~ Tayall - Teneriff & Lisbon. ~~into~~ sweet such as ~~To to sweet belong~~ Tokay - Frontiniac, and malaga, - ~~into~~ acerb such as Port - Claret, & Burgundy - and acid such as moselle - Rhenish and hock. They

V qualities according to their age. ~~They~~
~~should more~~ The older they are, the
less easily are they decomposed by
the stomach. The strong wines are
in their most perfect state, when they
are between six and seven years old,
~~They~~ at which ~~time~~ time they should
be kept in bottles. ~~not more than~~
~~A They should be lab sparingly in the intestines~~
~~two or three glasses of them~~ Intoxicate most
~~[illegible]~~
when I walked slowly =

are stimulating ~~or~~ and enriching accor-
-ding to the greater or less quantity of
saccharine matter ~~and~~ and most spirit
they contain. They perhaps very different
These ~~strong~~ wines are ~~most suited to~~ ~~the~~ less impaired by
the climate of the United States than any
others. ~~Wines~~. They may be taken with
water, or by themselves. The sweet wines
not more than two or
three glasses of them should be taken with a meal upon
are enriching, and make with a bis-
-ordinary occasions in an undiluted state, but a less quantity
-cuit or crust of bread a pleasant supper.
-~~will be~~ should be preferred.
The acid and dry wines are most agree-
-able when taken with sugar ~~always~~ &
water. They are improper in all gouty
and Rheumatic constitutions. ~~+~~

There are certain imitations of the
product of the vine which are used as
substitutes for them. These are

for 2d 49 = ~~of the~~

I know a contrary opinion has been en-
-tertained of and fermented liquors. Food has been supposed
to be wholsome in proportion as it is simple,
or prepared without seasoning and to be eaten without Beer or Wine.
But this opinion is contradicted by the experience of all ~~the analogy of the works of nature~~ ~~the first ~~ and to
~~ages~~. ~~The ~~ ~~single ~~ ~~instead~~ ~~the they was~~ ~~and is as expo:~~
~~single taken~~
~~inconsistent to the general tenor of the creators designs.~~
The tongue is an important ~~part~~ Lord in ~~instrum:~~
~~ment~~ the instrument upon which the
Animali act ~~which~~ that support animal life.
~~in~~ ~~extent~~ This is tongue this ~~to~~
~~in the~~ They ~~act in the~~ ~~upon~~ this organ to
every part of the body. This is demonstrated by a
single experiment. ~~torn~~ ~~one~~ One ~~quarter~~ Lib. of Quart Wine ~~wine~~ when
sipped, and thus permitted to lie for some time
upon the tongue will produce intox: ~~causes~~ that
is usual ~~to do to have~~ produce that effect when taken
into the stomach. ~~but~~ This stimulus upon
the tongue is a pleasurable one, and pleasure when
moderate is friendly to ~~life and~~ health & life.

Light & shade - variant in height & figure
nothing is independent, ~~in~~ and nothing phases
alone in the works ~~of the Creator~~ nature.
Contrasts & mixtures form all that is beautiful
and agreeable in the works of nature ~~they~~
Condiments appear to be intended to act ~~upon~~
in the full ways. They act upon the tongue.
This organ is

mead, mellighin and what are called home made wines. ~~The two former~~ Mead ~~first two~~ is made of ~~honey~~ one part honey, with four parts of water fermented with aromatic herbs, or berbs. ~~The mellighin~~ It is a cooling and pleasant summer drink. mellighin is made of one part honey & two of water. ~~It is life aqua~~ It is two dangerous to be taken in a large quantity. ~~All the~~ Part of the soft summer fruits of our country, ~~the~~ afford by fermentation ~~when a~~ with the addition of a small quantity of sugar, and a little brandy, an agreeable liquor ~~as~~ resembling the wine of the grape. That from the currant is generally preferred ~~to~~ all others. It is prepared in the following manner.

V meals, and always in a diluted state.
To remove the debility and fatigue which
occurs at those times, they are generally
offered to visitors, but a cup of chocolate,
a biscuit, or a sweet cake, or a little
fruit should be preferred to them. Dr
Franklin when a young man surprised
his ~~brother~~ fellow labourers in a printing
office in London whom "he saw swilling
porter in the intervals of their meals
by eating occasionally a roll of bread.
"You exhilarate yourselves (said he
to them) by taking the spirit of grain
only, I am refreshed and strengthened
by its substance." —

To ~~all~~ ~~Beer and~~ several of the liquors ~~all the~~ ~~liquors~~ that have been named, ~~are improved by~~ certain additions are sometimes made in order to improve their flavor or taste which have been called Condiments. These are Rosemary - wormwood - hops - ginger - orise root - ~~hops,~~ Indian Weekle - henbane & even Opium, but they all detract from their Vistues, and some of them render them ~~hurtful~~ unfriendly to health & life.

All these fermented liquors should be taken sparingly in the intervals of V

Distilled Spirits are obtained from all the grains & particularly from Rye, from Wine, ~~and~~ but chiefly from the Sugar Cane. They contain a small quantity of Acid, and a large quantity of Spirit ~~water~~ diluted with water. They do not contain a particle of Saccharine matter; of course they do not afford any more nourishment to the body than water. They are hurtful in every form in which they are habitually used, whether alone or in what are called Things, toddy or Grog. They are least hurtful in punch, for in this liquor, the Acid of the limes blunts the Spirit, while the water dilutes it, and the Sugar supplies it with a small portion of nourishing matter. ~~This is~~ I ~~and~~ have endeavoured in another work,

+ This Thermometer was published by the Author in the Columbian Magazine in the year

to point out the evils which these bane-
-ful liquors have brought upon the body
and soul of man. Had I a thousand
pens, and each of them furnished with
all the powers of ancient & modern elo-
-quence, they would not be sufficient to
describe in suitable language the numerous
~~and awful~~ diseases ~~of~~ and vices that have
followed their use in every part of the
world. — I shall only subjoin here a
concise ~~view~~ amount of ~~the relative~~ their influence upon
~~moral~~ health and morals with a relative view of the influence
of other liquors ~~upon~~ the same objects ~~in~~
~~the form of a~~ upon a scale which I
have called a moral & physical thermo-
-meter: —

V from a tincture of it being absor-
-bed by the lymphatics of the stomach
into which it descends in large quan-
-tities — it injures the voice when used
in the form of snuff by obstructing
the nose —

Related to distilled Spirits in its pernicious influence upon health is that loathsome weed called Tobacco whether used in Smoking, Chewing or in Snuff. ~~It impairs~~ weakens, It disparages the appetite - weakens the digestive powers, induces tremors - impairs the memory, brings on low spirits, tinges the skin of a yellow color, disposes to Consumption it produces emaciation of the body, and from the debility and thirst which follow its use, it often leads to intemperance in drinking. - ~~It~~ But its evils extend further - ~~it~~ it injures ~~a depraves~~ when used as snuff it injures upon the persons who use it, a clamorous ~~[illegible]~~ & ~~the Voice by obstructing the Lungs~~ and ~~in~~ tyrannical artificial want, ~~to sometimes~~ It makes a large invasion on a common life upon property, and it is contrary to that cleanliness of person and apartment which ~~are usually~~ if ~~with~~ is closely allied to ~~associated~~ ~~with~~ ~~with~~ ~~wrong ideas of~~ health & Virtue. Citizens of the United States

the ~~tumbler~~ of brandy ~~shots~~ bottle & the Segar

Fraught ~~the Segars and the flask of brandy~~ with ~~opprobrious and~~ prompt authority from

the hands of your Children! Save the human figure & character in the persons

generations ~~that are to follow us from~~ of your posterity from those ~~intoxicating~~

~~slave~~ ~~the vile that impend them from~~

~~the habitual use example of their fathers~~!

~~and enthroned~~ foes to health and life. They

are greater enemies to our Country

that the late orders of the British Council,

~~and~~ or the decrees of the French Emperor at

Milan. –

Having enumerated the principal ar-
-ticles of Aliment and the Drinks in
use in our Country, I proceed now to
make a few remarks upon the manner of
using them, so as to derive the greatest ad-
-vantages from them ~~and to suffer the few fewest~~
~~inconveniences from it~~ as the means
of preserving health and ~~pro~~ life.

I am aware that the long and
healthy lives of many people who have
lived ~~in~~ intemperately both in eating and
drinking, ~~let aside~~ ~~lid defiance~~ are opposed to
all principles and rules upon ~~this~~ subject.
~~But to~~ Persons who are influenced in their
opinions of the ~~Advantages~~ inefficacy of
Temperance upon health & life by those
solitary instances, resemble men who from a desire of burning and ~~destroy~~ with
waste ~~a~~ their estates in ~~lottery tickets~~ purchasing
~~waste capitals in lotteries without calcu-~~
~~-lating to~~
~~lotto~~ tickets in lotteries.

V nor is it any objection to the utility ~~as contrary~~ of Rules for the preserva-tion of health and life that many persons feel no disagreeable effects from the daily transgression of them for years together, as far as they relate to aliments and drinks. ~~to~~ The patient submission of the constitution to ~~the acts~~ these acts of violence that are committed upon it, no more prove them to be innocent, than a quiet conscience is a justification of an immoral life. Such persons usually snap, to use an English phrase, that is, die suddenly, ~~forcea~~ or they perish ~~in~~ by feeble diseases, or pass a sickly & miserable old age.

without considering what an immense number of people are made poorly thereby.

I am aware further that age, occupation, climate, ~~occupation~~, ~~habits~~, idiosyncrasy &c, the disposition of some parts of the body to perform vicarious offices for such as are ~~weakened by~~ predisposed ~~disease~~ by debility to disease, and above all habit, combined to ~~add~~ exert a powerful diversion from the ~~influence upon the~~ uniformity of operation of diet and drinks upon health and life, but after making the largest allowance for them all, I believe with the exception of one person in twenty the relations of cause and effect by means of impression on the human species are nearly as uniform as ~~they~~ are upon vegetables and inanimate machines. A definite ~~force~~ portion of ~~heat~~ heat and moisture ~~is~~ is necessary to healthy vegetation, and a definite or precise force of wind, and

V ~~Up~~ in ~~its influence upon~~ Obviating the uniform effects of diet and drinks upon the body, has its limits, and where it ~~is in offensive~~ diminishes ~~their~~ ~~it~~ renders their excess, or bad qualities ~~of~~ inoffensive, it is ~~after~~ because they are opposed by counteracting impressions. Thus the Indian suffers less than a civilized man from a gluttonous treat of animal food, because ~~he~~ ~~at first~~ he throws off its oppression first by flux and afterwards by the exertions of hunting and war - thus too the day labourer suffers less from drinking a bottle of spirit in a day than a person who ~~passes his~~ passes his time in a sedentary employment, because he ~~counteracts its~~ opposes to it the counter stimulus of labor.

VI ~~In a society~~ ~~Having~~ the members of a family, friends & strangers ~~together~~ to meet together twice or thrice a day, ~~two times, two or three times a day~~ and thereby to increase knowledge and to promote social & domestic happiness. and 3 ~~this~~ they are calculated to remind us of our constant dependance upon the goodness of Being who created us, and who daily supplies us with our daily bread. — Johnson's Speech

waters produce the greatest possible effects upon a mill and a boat, that are compatable with ~~the~~ this preservation ~~of their texture~~ from injury or destruction. The same thing is true, with respect to the agency of aliment and drinks upon the body. — Even habit ~~to a most~~ to powerful

These remarks being premised I
2 pass on to mention certain general rules upon this subject which apply nearly alike to a great majority of mankind. Before we enter
1 upon them, it may not be amiss to inquire why are we subject to the ~~frequent~~ daily returns of appetite, and why is not one meal sufficient to support our bodies for a week, a month, or a much longer time? I answer ~~for this~~ ~~we are subject to~~ the daily returns of appetite have for the ~~wise~~ following benevolent purposes ~~of a~~ 1 ~~enabling~~ They ~~th~~ multiply~~ing~~ and ~~th~~ increase~~ing~~ the pleasures of the table. ~~They~~ ~~they~~ They improve ~~th~~
2. ~~It improves th~~ ~~permitting knowledge~~ ~~and social happiness by the~~

1 V The appetite is sometimes an unsafe guide in regulating the quantity of food, inasmuch as it ~~is~~ often ~~disproportioned to~~ exceeds the strength of the digestive powers, and the exigencies of the system. It is ~~when always~~ a good practice always to abstain from eating where ~~there~~ is the least ~~hesitation~~ ~~doubt~~ deliberation whether enough has been taken. As in morals he that doubteth, and acts, is condemned, so he that doubts and eats, never fails to suffer by it.

2 The ~~appetite~~ taste is likewise an unsafe guide in determining the quality of our aliments, for we some times find ~~the~~ some of them as are agreeable to ~~the taste~~ that sense, produce disagreeable effects in

4 The ~~this~~ quality of food and drinks should regulate their quantity. Much less of meat should be eaten than of vegetables, and less of ~~go~~ bread, than of fruits. ~~as~~ While two pounds of Beef, or Mutton, and the same quantity ~~weighed~~ of ~~vegetables~~ bread and ~~drinks~~ table liquor are suffi=cient for a labourer for four & twenty hours, ~~a Persian~~ four times the quantity of ~~simple water~~ garden vegetables with simple water may be taken by him with safety in the same time. A Persian, Chardin tells us, feels no inconvenience from eating thirty pounds of Water melons in a day.

5 Size ~~and fat~~ influences the quantity of food necessary for the support of ~~animal~~ life. A large ~~man~~ body requires more to nourish it than a small one, and fat people, ~~from~~ the less diameter

the ~~system~~ Stomach.

By from the cordial reception which the Stomach gives to certain ali=
=ments is not always a sign that they are ~~un~~friendly to health, for we sometimes observe head ach - Hypo=
=chrys, and ~~convulsions upon~~ perverse symptoms induced by aliments that ~~pass~~ excite no sensation in the Sto=
=mach. — turn back to 4

or capacity of their blood vessels, require
less aliment than such as are lean, ~~persons~~ under
equal circumstances.

6 A mixture of ~~Certain~~ aliments which disagree ~~agree~~ with each other
in the stomach ~~better than others~~ ought
should be avoided. ~~For it is not~~ The ~~fish and~~ flesh of
land and water animals are often
indigestible when taken together. The
same thing is true of milk & fish. It
is probable all ~~the~~ aliments & drinks
have the same affinities or repugnance from
that are observed in chemical bodies.
They can only be ~~discovered~~ found out by experience,
but this discovery will amply reward the
labor in making it.

7 ~~The more we confine our~~ Great advantages will arise from making the
principal meal every day upon one dish. The
appetite for food should be regulated by

a note text of Scripture

+

the same laws that are imposed upon the sensual appetite. ~~They are both do~~ Variety in the objects of both, leads to excess, and does equal violence to the constitution. How often do we observe the appetite ~~persons~~ apparently satisfied with one dish, excited afresh by a new one, and when indulged, ~~the bad consequences of a~~ languor and its wretchedness in indigestion and plethora brought upon the system. This ~~simplicity~~ limitation of the appetite to one dish ~~is should extend only~~ is meant to extend only to animal food. A variety of ~~vegetable~~ vegetables may be taken with it with safety and advantage.

~~4.2~~
~~8.~~
55.2 We sometimes see a succession of genera-
-tions who cannot eat fish, eggs, or
certain fruits. —
5 certain aliments that are grateful to
the taste, and ~~inoffensive~~ acceptable to the
stomach produce disagreeable effects in other
parts of the body. The head ach, and
eruptions upon the skin are sometimes
induced by aliments that excite no
sensation of any kind in the stomach.

These general remarks being
premised, ~~I go on to say~~ we are led in
the next place to inquire into the times
and manner of taking our aliment.
6. There are in general three, and in
some families four times of ~~taking~~ eating
in a day. The ~~duties of~~ business & duties
of civilized life have made these times

of eating necessary, but there is reason to believe that man like the horse, and some other animals was intended to eat always, or rather a little, and often. Children and old people ~~who~~ in whom the ~~real~~ instincts of childhood are revived, bear with difficulty the intervals between regular meals. The Indians ~~Liberia~~ who live agreeably to nature, eat often when they abound with aliments. They even rise from their beds Mr. Bartram tells us in his travels through the Southern States in order to eat in the middle of the night. The constant action of a small quantity of food in the stomach is more favorable to the equable circulation of the

blood, and the equable excitement of the nervous system, and of consequence favourable to the good health, than the alternate languor & excitement which follow an empty stomach, and a full meal. A small quantity of food moreover when digested is more easily thrown out of the stomach than a large quantity, and in a much shorter time. I suspect the general & intemperate use of ardent spirits, opium and tobacco has arisen from the long intervals between meals which make their stimulus necessary to supply the absence of the stimulus of food. It is true they are often called for after a meal, but it is only

when the system is so much depressed by excess in eating as to render their stimulus necessary to remove it. But a custom ~~which~~ has divided our meals into three and four in day, & has made one of them more ~~and~~ plentiful than all the others, ~~In the United States this~~ ~~plan of~~ largest meal is taken ~~from~~ at different time between the hours ~~one to three o'clock~~ ~~from after the middle of the day. of one, and 3 o'clock in the afternoon.~~ it remains to be determined at what time this large meal should be taken. ~~In~~ The old Romans made their principal meal in the evening after the labors and studies of the day were finished. The Arabians Niebuhr tells us, follow the same practice. The coolness of the evening air in their hot country ~~makes the~~

appetite, and renders satiety ~~more apparent~~ less disagreeable from a number of people crowding around a table. ~~It and~~ The rest which follows a full meal in the morning ~~forbids~~ The dissipation ~~from the mind found~~ of the cares of the day from the mind ~~the~~ gives a higher tone to convivial pleasures in the evening than at any other time, and these we know ~~and to~~ are calculated to promote the health of the body. The rest moreover which follows this meal tends very much to promote digestion. Of this experience furnishes with many proofs. Our home experiments been wanting to establish this fact. — Dr Hamond.

V While not favours or accelerates digestion, it is certain sleep has a contrary effect, but it does not follow from this circumstance that food is less healthy upon that account. Perhaps it may be more completely digested by its longer detention in the stomach, and there can be no doubt but its influence in keeping up the actions of life in the sleeping state is greater when confined in the stomach, than when diffused through the intestines in the form of Chyle. Sleep after a full meal should be carefully avoided, for the stomach when unduly distended, passes

But should the influence of habit con=
=tinue to render the middle of the day,
or ~~one~~ two or three hours after it, the
time for eating the principal meal, it
will be proper to avoid labor and exercise
soon after it. If sleep should be indul=
=ged after dinner, it should never be
in a horizontal posture. Augustus we
read slept after eating a full meal, but it was only
in an Arm Chair. The Portuguese ~~often~~ sit down
upon the floor and sleep with their arms supported by
two chairs, and their backs, by a wall
after dinner. — Care should be taken

upon the adjoining viscera, and upon the descending cavity, and thus disposes to Colic & apoplexy. –

V. 9 meals, whether they be one, two or more in day, should generally be taken at the same hours. Nature expects them, and useful aperiodicities in the animal oeconomy are destroyed when she is not gratified. This is most proper & most practicable in the morning of life. –

when persons sleep in this sitting posture that the neck be perpendicular with the body, otherwise the ~~circulation~~ passage of the blood will be obstructed to, or from the brain. —V

10 It is a common practice in some parts of the United States to take a glass of wine ~~an~~ with bitters before dinner. The practice is a bad, inasmuch as it ~~the bitters~~ excites the appetite beyond the digestive powers of the stomach, ~~or it debars~~.

11 ~~It is a barbarous at most table to drink~~ The lips ~~in the~~ drink ~~at~~ that is taken ~~with our food~~ before we have finished the animal part of our meals, the better. It acts ~~by stimulus~~ if it be wine, or malt liquor, by stimulating the stomach, and thus prompting to eat more than the system

requires. If ~~it~~ the Drink be more simple, and be taken in a large quantity & beyond the proportion to solid food formerly mentioned, ~~the~~ it dilutes the saliva and gastric juice so as to weaken their dissolving powers, & ~~bar~~ by ~~floating~~ elevating the food ~~upon it~~ from the surface of the stomach removes it beyond the action of the latter, and finally ~~of~~ hurries it into the intestines before it is completely digested.

12 There have been disputes among physicians whether food should be taken hot or cold. It is peculiar to the human species to take it in the former way. Even the rudest nations prefer it ~~after it has~~ warm from the fire. It is certainly more savoury in this state, and if it be more easily digested when cold than hot, it

its being having been kept
must be ascribed to ~~the influence of time~~
longer before it is eaten.
~~upon which it was cooked~~

13. The practice of carving or cutting certain
kinds of food at table, has an unfriendly influence
upon health. Most of people sit down to
dinner in a state of debility from labor or
hunger. To contend with a tough goose or
turkey, or a piece of ~~dis~~ jointed meat in this situation for
~~than~~ a greater of an hour ~~wastes the ex-~~
~~-navies of strength brought to~~ increases the
weakness of the body, and thus ~~to~~ impairs
the strength of the digestive powers. It moreover
exposes the persons who have thus lost
fifteen minutes in carving to the necessity
of swallowing this food without masticating
it sufficiently in order to avoid the suspicious
singularity of eating alone. I say nothing

a note

+ The late Anthony Bennet once went into the house of one of his brothers at the hour of dining. He asked him to sit down and dine with him upon some poultry which was placed ~~on~~ upon the table. "What! said he would you have me eat my neighbours?" Had it been served in another form, so as to have concealed its shape, he would probably have dined upon it without asking any questions.

here of the mischief done to table Cloths, and dishes by this practice, nor of the remains of savage taste which is discovered by sitting down to dinner over Domestic Animals in the same shape in which they have pleased us with their beauty, or innocence while they were alive. The Chinese and the French nations always conceal the shape of the Animals upon which they feed by this mode of cooking them, ~~that~~ it is ~~often~~ difficult to ~~what Class of to~~ tell ~~to what Class of~~ whether they were taken from the Air or the earth. Hence the Knife is in part banished from the tables of France and the ~~food and the~~ Spoon supplies in a great measure ~~as well as the Knife~~ ~~under~~ the want of both the Knife & fork in China. In some parts of Sweden and Denmark McCaw tells us in his ~~Northern~~ summer

14 V There should frequent changes, or a ~~regular~~ rotation in the use of the different kinds of aliments particularly of flesh. This is necessary to keep up the pleasure of eating, and perhaps the salutary effects of food. It is from that disposition which the taste has to be satiated with one kind of meat, that that the beef, mutton and hog butchers seldom live upon the flesh they respective-ly prepare for the market. The disrelish and even antipathy which some men express for particular meats arises frequently from their having been fed when school boys exclusively upon it.

excursion to those northern Countries ~~car~~ their dishes of animal food ~~are~~ are cut up ~~this~~ ~~Carving is performed~~ by Servants before they are brought to table.

V 15 ~~To persons~~ Great benefit will arise to health from the occasional ~~for a to~~ diminution or a total abstinence from it of the customary quantity of our food. ~~It~~ This rule should be practiced ~~at all times when we are a little indisposed in extreme weather~~ ~~weather~~ at the following times and under the following circumstances.

1 When the body is a little indisposed from cold, or any other cause. The celebrated player Mr. Macklin ~~who lived to~~ ~~was 100 years of age~~ never had a fit of sickness during his long life which extended to nearly an 100 years. ~~He~~ ~~prescribed~~ ~~made~~ the means that procured him this exemption from attacks of disease were always to abstain from ~~eto~~ food as soon as he

V The Indians always fast in their slight indispositions. To allay that uneasiness in the stomach which arises from emptiness they eat a little of the root of the spikenard which keeps up a gentle action in the stomach, without imparting any nourishment to the body.

felt himself indisposed in the smallest degree - to go to bed - and to drink dilu=
=ting teas only for two or three days. ~~Indian practice~~
2 ~~Abs~~ The quantity of food should be
lessened in very warm weather.
3 It should be lessened during the prevа=
=lence of violent and malignant fevers.
4 In all sudden ~~[illegible]~~ and laborious
~~[illegible]~~ enterprises of the body or mind which are
intended to be of a short duration, great
advantages will arise from a diminution
of the ordinary quantity of food. Dr
Jackson has furnished some striking
proofs of the efficacy of this practice
upon himself in the West Indies.
5 Persons who live much in ~~[illegible]~~ convivial
Society should fast at least once a

week. The Custom of Dining upon among the Catholics
fish every Friday is a good one. ~~It~~
~~depends the labor of the System~~ It is a relative
Abstinence, for fish as it was formerly remarked
less nourishment than flesh. Sir John
Sinclair mentions an instance of a great
feeder in London who lived much in Company who
dined upon a single egg every Sunday.
Dr Franklin made it a rule ~~practice to~~
while he resided ~~at~~ in France as Mi-
-nister from the United States, to refuse
all invitations to Dine out on a certain
Day of every week. On that day he
retired to his bed Chamber, and lived
entirely upon weak ~~[illegible]~~ tea. He
gave as a reason for this practice, that
it "was necessary to give nature a
holiday once a week in order that
she might clean out her Streets". In

V 6 istance is highly proper before persons submit to ~~difficult~~ such surgical operations as will probably be followed by an inflammatory fever. The Indians live sparingly before a battle by which means wounds not made in vital parts heal much sooner than the wounds of Soldiers in the Armies of civilized nations. –

all cases of ~~fasting~~ abstinence, liquids of some kind should be taken. The system is more benefited by it, than when the sensation of thirst is added ~~to~~ to that of hunger. The system suffers less likewise from the temporary abstraction of food than it does of drinks. —

Nature it is said abhors a vacuum. It is equally true, she is unfriendly to ~~too~~ too much uniformity in eating & drinking whether it relate to quantity or quality. However ~~this~~ necessary this may be to cure diseases, it does not always prevent them. In the intercourse with the world which business, travelling, & social pleasures ~~[illegible]~~ render necessary for most men, it is impossible to carry the

pair of Scales, or a measure to determine the quantity of ~~the~~ our food; for which reason it will be necessary to avoid too rigid habits in eating and Drinking. To inure the System to eat of every thing, and at any time will be useful in the present state of civilized society. A little excess now and then ~~has~~ is often as necessary and salutary as a little diminution of our food and Drinks. — It fortifies the System against diseases from causes over which we have no Controul such as the vicissitudes of the weather, ~~and~~ It gives a gentle fillip to nature, and ~~prosperous~~ prevents her ~~her operations~~ forgetting to keep all her passages open, and all her wheels in motion. The late Dr Cleghorn of Dublin belonged to a Club that dined together once a fortnight.

v Short, he does not know all the harmless pleasures of eating who does not depart now and then from his ordinary habits as they are related to the quantity and quality of his food, ~~or~~ any more ~~than~~ he knows not the pleasure of a feast, who fases sumptuously every day.

~~The Doctor~~ For two or three days after meeting this Club he used to say he enjoyed better health and spirits than he did on any of the intermediate days. at which he ate and drank a little more than he did with his family

The fresh supplies of ~~of~~ health & spirits & even the blossoming color which many people bring home with them from ~~short visits~~ short visits to their friends whether in town or country, and in some instances from ~~to~~ ~~from~~ mineral springs, and the seashore, I believe are often the effects of ~~fresh vigor being to~~ the calm in their systems being removed by the ~~increasing~~ additional quantity of food and drinks ~~to~~ which friendship & hospitality, or company ~~disposed them~~ disposed them to take; or forced upon them. In ~~15 food should be well masticated before~~

v education in youth, and by a few resolute experiments in every stage of life. —

If There is in some persons what is called Idiosyncracy, that is an inability to eat or drink, or to digest, certain aliments and liquors ~~that without being injured by them and~~ which are ~~inoffensive~~ pleasant to ~~common~~ the taste, and inoffensive to the stomachs of other people. ~~It is common~~ This idiosyncracy is ~~either~~ hereditary - native, or acquired. It is ~~proper~~ common to humour it, and where the ~~Antip~~ ~~between~~ antipathy of the taste & stomach ~~& aliments~~ is to those aliments & drinks only that are seldom met with in company, no inconvenience can arise from so doing, but when it extends to ~~common~~ numerous and to common articles of ~~it~~ diet, the antipathy should be conquered. This has often been done by a proper

18 Food should be well masticated before it is swallowed. [The following experiment will show the necessity of attending to this rule.

many diseases of the stomach arise from the neglect of this rule. It is often induced by extreme hurry of business, by absence of mind, by conversation and by drinking healths. The last ~~subject is exactly the~~ produces this effect by obliging persons to swallow their food before it is masticated ~~in order~~ to order to express their thanks to the person who drinks to them. The practice of drinking

broken an appetite - by

health moreover proves hurtful to young people (who are modest) by disposing them ~~if they~~ not to drink at all, rather than ~~publicly~~ interrupt half a dozen or a dozen persons who are intent upon eating by rudely addressing them ~~with a loud~~ in an elevated tone of voice, with good wishes for their health.

In order to mastricate food properly, the teeth should be in a sound state. This importance not only to health but to speech, & beauty, ~~as well as to health~~ ~~should then~~ renders a knowledge of the method of preserving them an essential part of ~~a system of~~ the present work. I shall therefore deliver a few directions for this purpose.

means ~~for~~ of preserving the teeth & supplying the ~~defe~~ want of them.

1 Let the milk teeth (as they are called) or the first teeth, be extracted as soon as they become loose, in order to enable the second teeth to project in a strait & regular manner. If ~~any~~ the least disposition appears in any of them to grow irregularly, let them be kept strait by means of gold wire, or by drawing the adjoining milk teeth before they are lose. Crooked teeth, like deformity, in other parts of the body, always dispose to disease. They ~~generally~~ are apt to decay soon, while regular and handsome teeth are generally lasting.

2 In young people we sometimes observe a single decayed tooth, with every

✓ ~~for~~ In this respect the teeth resem=
=ble plants which suffocate & destroy
each other, if they grow too ~~closely~~ closely.
The decayed tooth

Other tooth, sound and beautiful. This ~~solitary decay decayed~~ decay in this tooth is produced by the pressure of the adjacent & surrounding teeth upon it being so great as to deprive it of its nourishment. ~~It~~ It should be extracted immediately or ~~the decay~~ it will ~~infect~~ spread its disease through the whole jaw. I am indebted for this article of advice to the late Dr Spence who confirmed the truth of it by the practice of many years.

3 Remove a ~~decayed~~ decayed tooth as soon as it is perceived, more especially if it be ~~becomes painful, or as troublesome~~ painful, ~~it becomes so loose without being diseased, as not to be comfort in chewing~~ ~~capable~~ to bear the pressure of food ~~offered~~ upon it. A tooth when it ceased to be used, ~~projects from its socket, and becomes painful, affects the~~ is apt to project

3 Remove a decayed tooth as soon as it is perceived (Unless ~~it can be~~ the decay can be stopped by gold leaf) more especially if it be tenable to bear the pressure of food upon it. The reasons for this advice are as follow.

1 a decayed tooth exposes to great local pain, from cold, and hot substances applied to it. ~~and to have not painful~~ It is likewise an inlet to many general diseases. I have seen Epilepsy and indigestion brought on by it, and cured by its removal, and ~~Author of~~ there are records in books of Medicine of head ach, Vertigo, and Consumption being induced by it.

2 It affects, and corrupts the teeth that adjoin it, or that are above, or below it.

3 It ~~taints~~ renders the breath offensive,

and sometimes taints the food ~~that~~ ~~food~~ thus brings on diseases of the stomach and bowels.

4 From a decayed tooth not being used, it is apt to project

from its Socket, and to become elongated. But this is not all - from the want of exercise of the ~~teeth or~~ teeth in the jaw above or below it, the gum becomes diseased and the tooth ~~they likewise project~~, ~~and become~~ loose, and hence we observe the lip of the fore teeth of the upper jaw, to be soon followed by the lip of the corresponding teeth of the lower jaw. ~~Hence both~~ The truth of this remark will appear more evident by attending to the plate of the teeth in ~~of~~ horses that live altogether upon hay or soft food. It disposes the incisores or fore teeth of both jaws to project, from their want of exercise in cutting the grass, in consequence of which they are unable to bring their molares or grinders together. Horses that are kept constantly in a stable often die prematurely from this cause. I shall in another place mention
-on

V 3 Acquire a habit of exercising equally the teeth of both sides the jaws in eating. The salivi is thus poured forth more plentifully upon the food, and equal strength imparted to all the teeth.

the means of preventing it.

4 ~~Avoid~~ Avoid the early and intemperate use of acids whether in unripe fruit, or in vinegar in diet, and the habitual use of the ~~citric~~ mineral acids ~~[illegible]~~ as a medicines. The Nitric Acid is said to be the least hurtful of them. When it is necessary to use any ~~[illegible]~~ of them for a considerable time, they should be taken through a pipe diluted with water, so as to pass over the teeth without touching them.

5 Protect the head and jaws from cold & a local fever by sleeping in a warm night cap in cold weather. By this means the warmth of the body is equalized in bed. The French people owe their excellent teeth ~~to this~~ chiefly to this ~~[illegible]~~ practice and too in a climate not much less variable than

that of the United States.

6 Wash your jaws and behind your ears every morning in cold water, & your teeth with water a little warmed, by means of fire, or by standing all the night in the ~~up~~ open air of a warm chamber.

7 Wash your teeth after every meal, particularly after supper. The remains of food by stagnating a whole night upon them, becomes putrid, and sometimes so acrid as to inflame the gums and loosen their connection to the teeth. ~~from this cause=tion with the gums~~

8 Frequently and carefully remove the tartar from the roots of the teeth. It pre=vents their being duly nourished, and

sensibility only to heat and cold, & acids probably for no other reason than to ~~teach us~~ teach us to protect them from ~~to~~ the extremes of both in our aliments & Drinks. —

thus loosens and destroys them.

9 Avoid the alternate ~~action~~ application of cold and hot drinks to them, especially in a quick succession. The teeth are endowed with V

10 Avoid using the teeth for purposes for which they were not intended, such as cracking hickory nuts, bending nails, biting hard apples or other fruit, and even biting the ends of the nails, and the ends of thread. Women weaken their teeth very much by the last practice.

11 avoid the use of all acid corrosive tooth powders, also too much friction of the teeth. The following composition has been found to be safe and useful, when rubbed upon the gums by

means of a ~~tooth~~ brush. Powder of Bark and Charcoal of each an ounce. Myrrh ~~two~~ half an ounce, Cream of Tartar two drams intimately mixed together. A weak solution of an alkaline salt is likewise an excellent application to the gums. It dissolves the matter that insinuates between the gums & the teeth and thus prepares them to be more easily washed out of the mouth. It moreover corrects the fetor of the breath from ~~was~~ decayed teeth. Soap and water has been used with advantage for the same purpose. If Brown and black spots ~~[illegible]~~ upon the teeth should be removed by means of a

file. I have known the decay of the teeth to be thus arrested through life

The inconveniences from the loss of teeth are such that Art has supplied several substitutes for them. These are human teeth purchased & extracted from the jaws of poor people, and evidently fixed in the sockets of the decayed teeth recently extracted. The sound tooth in this case does not unite with the blood vessels of the sockets. This has been proved by a wooden tooth burrowing equally fixed in the socket of a dog, also by the root of the artificial tooth decaying and dissolving in the socket while the other part of it remains perfectly sound. The tooth adheres to the jaw bone therefore

~~only~~ exactly in the same way that a nail adheres to a piece of wood. ~~A dry tooth than~~ From the facts that have been stated it appears that a dry tooth ~~would~~ (contrary to the common practice) would have many advantages over a recent one in being less disposed to decay from being deprived of its juices, and in being less apt to create inflamma-tion and ulceration from the putrefaction of those juices in a state of putrefaction. I cannot recommend this practice. It is ~~pain~~ inhuman, painful, tedious, sometimes dangerous, and always tem-porary. The engrafted teeth seldom last more than four or five years.

A 2nd mode of supplying the want of

teeth is by means of what is called pivot=
=ting. A piece of silver or gold is fixed
in ~~the~~ an artificial or natural tooth
in its dry state, and thrust into the stump
of a decayed tooth. ~~A tooth the~~ A tooth
or teeth thus fixed, serves the purpose
of speech and were of mastication
for ~~some~~ a short time, but the pivot soon
wears away, or the hole in the ~~tooth~~
sharp of the ~~dead~~ tooth in the jaw
soon becomes too wide to hold the
pivot in a firm state. From ~~the~~ one
or both of these causes the tooth is ~~apt~~
to fall out in eating, ~~I have heard too~~ & sometimes to be
~~instances of its being~~ swallowed with the
food.

4 3rdly ~~method of~~ The want of natural
teeth is supplied by tying artificial

teeth made of the teeth of the Sea Cow
by means of thread to sound teeth.
This mode is ~~the~~ more durable and
~~least~~ less inconvenient ~~of any that can~~ than either of
the two which have been mentioned. Two setts of them
shall always be in use, and they
should be changed every two or three
days. ~~Twoo~~ new setts should be used
every year or two, for as they wear
away, or are eroded at their extre=
=mities, they are apt when drawn
close to the teeth which hold them
to loosen them, and thus to cause
them to drop out of their sockets.
4 Where all the teeth have fallen

8 The use of springs, or the pressure, may, has done away the fastening by the gums.

out, their loss has sometimes been supplied by a set so formed as to sit easily upon the gums of the upper and lower jaw, and to serve in a limited degree ~~all so any~~ all of the purposes of natural teeth. ~~The~~ A Description of them would be ~~unnecessary~~ unnecessary in this place. ~~as They are~~ They are made by most of the Dentists in the United States.

Rules for the preservation of health and life must necessarily be of a relative nature. Age - ~~Seasons and~~ Sex, Occupation ~~and climate~~ and Season require diet & drinks of an appropriate nature. I shall therefore briefly ~~mention the~~ apply ~~rules that have been mentioned to~~ mention ~~the quantity and quality of the aliments and drinks which are most proper for each~~ mention a few circum-stances which should regulate the diet and drinks proper for each of them.

Children ~~require~~ possess more irritability or a greater disposition to be be acted upon by Stimuli, than Adults. They require likewise food for the double purposes of promoting their growth and supplying the daily waste of their bodies. It follows of course that their Diet and Drinks should possess but little Stimulus, and that it should be of the most nourishing kind. — ~~so~~ From what has been said in the history of Aliments and Drinks, it must be obvious, that milk, the grains, vegetables, & fruits ~~with should compose the farmer~~ with simple water are most suitable for them. ~~and~~ ~~The robust Constitutions of the~~ The finest Constitutions in Europe and America have grown out of the potatoe, oatmeal and Indian corn

mixed with milk, or sugar or molasses.
As ~~they are~~ children advance in years they
may partake of weak tea & coffee, weak broths, and fresh fish,
~~broths of which are~~ with a moderate
quantity of boiled animal food. The less
it is ~~are~~ seasoned the better. Condiments
such as salted meat & salted fish should
be withheld from them ~~at~~ with their
breakfasts and suppers when those meals
consist~~s~~ of tea, and coffee. Butter should
be ~~used by~~ given to them sparingly;
~~and~~ sugar may be taken more freely
with this aliments. ~~provided it be used~~ a teaspoonful or
more of it taken in the morning has
been found in many families effectually
to prevent all the diseases which are
produced by worms. From the rapid
digestion which the above aliments
undergo in the stomachs of children they,

should be indulged in eating often. A
crust of bread, or a roasted potatoe should
always be prepared to meet their appe-
-tites in the morning, and when they
return from School. ~~Wine and Spirits~~
~~should not~~ Malt liquors and wine should
~~not~~ be ~~tasted by~~ given to them in a diluted state in
small quantities ~~without great caution,~~
~~and that only~~ in the Summer months,
~~lest they should~~ in order to protect their bowels
from the usual disease of hot weather.
Ardent Spirits should never be tasted by
them.
To these rules there should be exceptions in
favor of Children that bring into the
world, ~~or~~ or acquire in infancy, feeble
constitutions. ~~These such with and~~ For
~~vegetables Above all~~ such children require
animal food of ~~the most~~ a cordial nature,

and a constant but moderate quantity of malt liquors or Wine. ~~I know such a fact~~ They are the remedies of the Constitution, and as much indicated in such cases as medicines are to cure their diseases.

In youth the ~~appetite calls for animal~~ blood vessels are irritable ~~food~~ and the nerves sensible in a high degree. The least excess in either of them, disposes to, and often produces diseases, particularly fevers and hemorrhages. ~~The diet most~~ The appetite in this stage of life is often keen, and calls ~~chiefly~~ for animal food. To prevent the diseases to which the system is predisposed at this time the quantity of food should always be less than the appetite calls for. ~~Boiled~~ Broths ~~meat~~ should be preferred to solid meat, and boiled meat to that which is roasted, or broiled. Malt liquors, wine and condiments should be taken spa=ringly, with ~~their~~ meals, but at no other time, and ardent spirits - never. Pastry ~~and ardent spirits never~~

made in the most simple manner,
and ~~abundancy~~ mixed with fruits, serves to
blunt the appetite for animal food,
and thereby to lessen the Use of it. It
should therefore form a ~~pa~~ material part
of the Diet of all boarding Schools. There
are few young people that are not fond
of it.

In middle life, ~~the diet and drinks~~ the system undergoes a change. Irritability and sensibility are ~~in a more~~ nearly in an exact proportion to each other. It is moreover the period of ~~bad~~ great bodily and mental exertion, of course ~~more indul-~~ ~~gent~~ diet and drinks of a ~~more~~ cordial nature are required to supply the ~~the~~ rapid expenditure of the strength of the body and vigor of the mind. To ~~the~~ persons of ~~this~~ ~~age~~ this age, I shall only ~~say to~~ recommend an attention to the Rules which are annexed to the history of Diet & Drinks, and advise them further to recollect that Good health like money is a Capital, and that the more Oeconomy is used in expending it in early and middle life, the more will be laid up

for old age. Nor wise but not obvious
the injuries that are done to it, for many
reasons, the system often suffers ~~in~~
years in ~~for many years~~
patience and silence ~~the injuries that~~
but sooner or later there is an end to this
~~are done to it in early and middle life,~~
forbearance; ~~but it does not always forbear~~. If the
~~overflowing bumpers~~ the rich ragouts,
the undue and oppressive loads of meat
simple animal food, the improper
mixture of aliments, and the bottles ~~of~~
instead of glasses of wine which have been swallowed
with them, ~~will revive years afterwards~~
~~in the forms of~~ ~~if they~~
~~like the bird~~
do not ~~expose~~ subject to a premature death from
common acute diseases, they ~~will~~ certainly revive
in the forms of Vertigo, palsy, and
apoplexy, and thus amply avenge the
~~abuse of~~ ~~waste~~ intemperate and sinful use of ~~the~~ the precious
gifts of providence.

Old age may be divided into two periods, the one beginning at 60, and ending at 75, - the other, extending from 75 to the remotest term of human life. This latter stage has been called decrepitude. In the former period, the blood begins to flow with languor, and is disposed to stagnate in those parts of the body in which the force of the heart and arteries is least felt. The senses of seeing, hearing, and touch become dull - and the tone of the mind descends with that of the body. The nervous system loses a portion of its sensibility, but it acquires at its expense, an increase of irritability, that is, it is more easily moved by those impressions which act exclusively upon it. The ~~Teeth become loose, the history of~~ appetite increases, while the teeth

drop ~~or fall~~ out of their Sockets, or become ~~impaired~~ ~~the state of the body in the first stage of old~~ so loose that it is difficult or impossible to masticate ~~age it is evident that a there is barrenness~~ with ~~it, and~~ them, and there is a an inaptitude to exercise, and ~~to~~ disposition to prefer rest to labor. It is from this cause that ~~many~~ those persons who have led active lives and who have become independant in their circumstances, ~~at~~ between 55 & 60 years of age, often ~~become~~ lose their health, and are afflicted with all the diseases that arise from a languid circulation of the blood, and a want of tone in the muscular and nervous systems. In this stage of life, a material change should be made in the diet and drinks. The former should consist of articles rendered cordial by condiments, but not very nourishing. These should be soups or otherwise prepared, ~~for~~ ~~well boiled~~ meat so boiled as to be rendered easy of mastication, fish,

V The attachment of old men to cordial aliment is illustrated in the command of Isaac to his son Esau to render the venison "savoury" and "such as he loved" before he brought it to him.

VI ~~As the system bears with difficulty the reduction of diet in this stage of life, the diseases incident to it should increase~~ From the excess and indulgence of the ~~indulgence of it~~ of appetite, and the diminution of exercise and labor, the blood vessels become overcharged with blood and the system becomes subject to all the diseases of plethora at this time of life. To remove them, - a reduction in the quantity of aliment is submitted to with reluctance, and is borne with difficulty & sometimes with danger. ~~by the system~~. The remedy for these diseases is small & occasional bleedings. They are safe and useful, and do less violence to the system than any other mode of depletion.

75-1

pastry, fruits, chocolate, tea & coffee. The means ~~they~~ old people advance to seventy five, ~~the~~ Often they should eat. It has been common to call wine the milk of old age. This is by no means a ~~correct opinion~~ true saying. From the increase of irritability in ~~their~~ systems of old men less quantity of fermented liquors of all kinds intoxicate them, than in early and middle life. Wine, cider, and malt liquors therefore should be taken sparingly by them, and always in a diluted state. The more liquids they ~~taken in this~~ thin & simple drink the better within a certain degree. They are calculated to obviate that disposition of the fluids to rancidity, ~~and~~ obstruction, and the formation of gravel and stone in the kidneys & bladder which accompanies old age. "

In ~~that stage~~ of life which has been called Decrepitude —

75
74

~~infinitile Constitution. There is now not~~
~~only an indisposition, but~~ there is an inability to
labour or exercise. ~~The~~ Diet ~~in this stage~~
~~of life~~ should ~~be indicat~~ therefore ~~of taken nourishing~~
~~but not stimulating~~ supply this place ~~of~~
~~Nature~~ in supporting the Actions of life.
Nature now calls ~~for~~ not only for food,
but sometimes for the fattest meats,
and experience shows that it is safe
and proper to gratify her. ~~For~~ As the
digestion is now rapid, ~~food~~ food should be
taken in the intervals between meals,
and ~~taken~~ called for by hunger, it ~~wholesome also attends this~~
~~extreme period of human life~~, food
should be taken in the middle of the
night. The drinks ~~in~~ should be ~~simple~~ diluted,
strongest liquors. Ardent Spirits should
~~for the same reasons which were~~

V From the greater irritability of the female constitution, women require less ~~aliment~~ stimulating ~~both~~ and nourishing aliment than men, nearly at all times, ~~but~~ and particularly ~~at times~~ ~~fall~~ when the system is in a preternaturally excited, or inflamatory state, from ~~that is during~~ ~~the continuance of this monthly disease~~, menstruation and ~~and the time of~~ pregnancy. ~~An exception to this rule should be made the~~ Abstemious diet is strongly suggested by nature in the latter ~~case~~ state of the system by the sickness ~~on~~ at stomach and want of appetite which she induces during the first months after it takes place. ~~There is but~~ The only exception to this rule, ~~and that is~~ should be during the time of giving suck. The diet and drinks should then be of a more cordial and nourishing nature.

not be tasted.

~~mentioned in speaking upon the~~

V ~~Drinks proper for the first stage~~

Stimulants men induce upon their Systems

~~the~~ many of the diseases which are brought on by the ~~infirmity~~ inactivity of Old Age. The induce exercises of the brain ~~have the stomach~~ have other parts of the body and particularly the stomach in a ~~and loss in a state of torpor~~ torpid state. ~~The~~ To obviate this torpor the diet should be gently stimulating, small in quantity, and not very nourishing. Wine may be taken ~~liberally~~ with this it ~~but~~. It keeps up the actions of life without adding much to the quantity of blood. ~~but~~

Coffee should be ~~prefered to~~ used liberally
by this ~~this~~ ~~whole~~ class of people. ~~The tea~~
It is ~~like wine gently~~ cordial ~~without~~ and
~~being very frugal adding very~~ adds scarcely ~~nothing~~
anything ~~nor~~ to the nourishment of the body
but ~~but~~ what is contained in the Sugar &
Cream or Milk which are mixed
with it. Mr Poole ~~the author of~~ who spent ten years in writing
a synopsis
and annotations upon the bible, his Biogra-
-pher ~~says~~ tells us he rose and sat down to his studies ~~to~~
at three o'clock every mor-
-ning, eat a raw egg at 9 o'clock and another
at 12, and after spending the ~~whole~~ afternoon
~~with~~ in his closet, ~~left it in~~ passed the evening of
~~which he passed~~ the day in convivial society. ~~with~~
~~his friends~~. Many of those authors who
have both ~~both~~ instructed and delighted the
world ~~with~~ by their writings have lived
from necessity ~~upon~~ ~~the same~~ on equally scanty
~~fare~~ ~~fare~~ ~~that this portion of aliment.~~
and perhaps owed their lives to a ~~life~~
~~similar~~ similar portion of less nourishing aliment.

The diet for ~~Labourers~~ persons who ~~follow~~ ~~lead~~ are devoted to sedentary Occupations should be nearly the same as for studious people. From the labour of their hands being greater, it should be somewhat more plentiful and nourishing.

~~The Aliments and~~

Labourers who employ all the muscles of their bodies in active employments whether in the open air, or under cover, live at a great ~~in a~~ constant ~~state of~~ expense of their strength ~~from~~ by ~~perspiration, and the~~ perspiration and otherwise. They require therefore food that possesses the double properties of stimulating and nourishing the body. ~~the on the profits~~ ~~Therefore~~ It should be of such a nature as to prevent the loss of time in taking ~~fresh~~ frequent supplies of it into the stomach. A day labourer upon a farm in Philadelphia County once ~~told~~ said to his employer who offered him a breakfast of bread and milk !! I cannot work upon that diet - give me

something to eat that I can fill ~~all~~ in my stomach till dinner time". ~~Food~~ ~~slow of digestion~~ He had found by experience ~~had taught him~~ that food slow of digestion, accorded best with the waste of his strength by labor. This should be, salted meat, particularly pork (which from its fat ~~is the cheapest~~ I have said is more nourishing than beef) - smoked meat - and fish salted sausages - hard boiled eggs and ~~onions~~ onions. The last of those articles should form a part of ~~the~~ every meal of labourers. The Jews were enabled to ~~perform the~~ comply with the severe exactions of their task masters in ~~the~~ the hot sun of Egypt, by feeding upon onions and other alliaceous roots. Sir William Temple says the Pyramids

+ O! dura messorum illia"

V The Russian peasants obviate hunger by eating half ~~dara~~ baked bread, & the Irish peasants do the same thing by eating half boiled potatoes. They produce that effect by their ~~the~~ indiges=
=tible qualities.

of Egypt were built by them, by which he meant, that those stupendous monuments of human industry & folly were erected by men who were fed chiefly upon ~~them~~ onions & garlic. The toils of the harvest in ancient Rome were supported by a diet of which onions formed a part. Of this ~~the poet~~ Horace mentions a proof in his ~~appeal to~~ contrast of the strong digestive powers of reapers, with his sufferings from having accidentally ~~eat~~ eaten ~~of pods upon it~~ of them. ~~ate to~~

The Chinese Dr Barrow tells us add not only onions, but rancid Castor Oil to their rice. ~~in order to render it more~~ ~~condi~~ It serves like the onions to retard by the digestion of the rice, and to render labor more easy, and to producing a more durable stimulus upon the system.

~~Upon the diet of all the three last classes of people, that have been mentioned,~~

~~I shall only remark that as the thermometer~~

~~The~~ The Drinks of laborers should be simple, and small in quantity, more especially in the former part of the day. The Indians ~~always~~ avoid drinking ~~in this~~ as much as possible ~~until they~~ ~~have reached that~~ ~~stop to eat~~ in their marches and hunting excursions, until they stop to eat which is ~~about~~ a ~~in the~~ ~~noon~~ ~~afternoon~~ or more before the middle of the day. They consider it as a mark of youthful ~~folly~~ inexperience & folly to do otherwise. It certainly impairs the appetite, and ~~thus~~ weakens the body. ~~Sir~~ Robert Wilson in his account of the English ex=pedition into Egypt in the year says ~~those~~ soldiers ~~who the heat~~ suffered ~~least~~ from the heat, who only washed their mouths with water without swallowing it. ~~Instead of drinking~~ Experience teaches that ~~the~~ labor will in hot weather is ~~laborers Drink, they laborers will find~~ ~~their strength supported much more~~

horse ~~respected~~ much better by ~~eating, thus~~ taking a little cordial Aliment, than by drinking between meals. The Jews made use of figs for this purpose. ~~They~~ ~~utility~~ Their fitness for it is evident from wrestlers feeding upon them in ancient Greece. The Arabians & Niebuhr tells us always carry Raisons & Onions with them when they travel ~~to~~ eat upon the road, in order ~~to~~ obviate both heat and fatigue. In the United States Gingerbread, biscuit and dried fruits have been found to be both agreeable and useful when used in the same way. ~~Biscuit, a piece of smoked meat, or the salted~~ and a salted ~~meat's~~ Cup's tongue might be taken by those persons to whom gingerbread is not agreeable.

The Drinks ~~with~~ of labourers, whether in the field, or at Meals, ~~of labourers~~ should consist of emulsions and Water - vinegar & water with a little Sugar, ~~or~~ milk & Water or

porter or Cyder and water. Ardent Spirits should be proscribed from the ~~innocent~~ haunts of ~~innocent~~ labor. They ~~can~~ alone convey into ~~give~~ it the character and consequences of a Curse. Without them, labor is a blessing in disguise. —

Upon the diet of ~~old~~ ~~men~~ people, studious men, and Cabouness, I shall only remark further, that as Stimulus is one of the properties upon which the effect ~~necessarily~~ ~~necessarily~~ of Aliment in ~~supporting~~ preserving health and life depends, would not ~~good~~ the same advantages be derived from the Stimulus of distention ~~which~~ in the Stomach which are derived from that of ~~a~~ an acid, or aromatic quality in food and Condiments? — The horse is invigorated by the Corn and the ~~grass~~ ground ~~and~~ which he eats with his Indian Corn & Oats. Both these insipid substances ~~they~~ act ~~only~~ chiefly by filling his stomach. ~~Voracity~~ Many

wild animals are kept alive by taking matter into their stomachs which act in the same ~~[illegible]~~ mechanical manner. in ~~[illegible]~~ famine &c

~~The Seasons in the United States require a peculiar kind of Aliments & drinks.~~ influence of Heat and Cold, and of moisture and dryness, and ~~above all~~ of ~~them~~, the exhalations which sometimes float in the Air under a peculiar and specific kind of Aliments and drinks proper in the ~~four Seasons~~ different seasons of the year. It will help to impress ~~the~~ correct ideas ~~Inflammatory diseases prevail chiefly in the Spring of~~ upon this subject to remark, the affinity between the four seasons and four of the most prominent stages of life, ~~and the Correspondence between each of them and the Aliments & drinks that are most proper in each of them.~~ The Spring may be considered as the childhood, ~~and Youth~~ - Summer as the Youth, Autumn as the middle life, and Winter,

as the old age of the year. A striking cor-
-respondence exists between the Aliments & drinks
that ~~are proper for the seasons~~ have been
pointed out for ~~those~~ four ages of man,
and ~~the~~ four seasons ~~of this year~~ that have been
mentioned.

In the Spring, animals ~~food is generally~~
~~poor and from its being the season in which~~
~~animals~~ are generally ~~poor from and poor~~ poor
~~healthy~~ from the ~~scanty~~ dry and perhaps scanty food in
~~Aliment~~ of the
preceding winter, and from its being the
time in which most of them propagate
this species. ~~Too, there are improper but~~ The vegetables which it
is necessary to mix with animal food are improper
~~for vegetables at this~~ at this season ~~are~~
~~stale, stale~~, Stale, and often ~~scanty~~ small in quan-
-tity; ~~for~~ which reasons the principal
aliment ~~instead of~~ in the Spring should
consist of ~~salted meat, or salted fish~~ fresh fish, and succulent vegetables
such as Spinach - ~~and~~ asparagus. The
System at this time above all others,

from the first impressions of the Vernal
hen upon it, is ~~more~~ predisposed in a great degree to in=
=flammatory diseases; for all which reasons
the principal aliment in the Spring
should consist of fresh and salted fish,
salted meat, and excellent vegetables
such as Spinach, asparagus & what are
called young Sprouts (consisting of.) It is a
custom of the oldest Christian Church
to enjoin ~~this~~ a diet of fish alone
with vegetables during the season of Lent,
which includes forty days of the Spring
months. This institution is a truly
wise one, and should have been retained
by all those sects that separated themselves
from the Church of Rome. It is calcu=
=lated to reduce the quantity of nourish=
=ment taken into the body, and conse=
=quently

to upon plethora, and the predisposition to inflammatory diseases. It has this effect not only from its being less nourishing, but from the diminution of appetite which the same food taken for a long time, necessarily creates.

It ~~was formerly~~ is a practice to ~~take~~ bleed ~~and~~ and to use diet drinks ~~in~~ to prevent the diseases of that spring in some countries & the simple season. and temperate diet which has been recommended will render them all wholly unnecessary ~~for~~ that purpose.

In Summer the heat of the sun disposes to fevers and bowel complaints by its action upon the solids and fluids of the body. Life is now in excess ~~for~~. The diet proper to upon it, & to obviate its diseases should be distending to the stomach & cordial to the bowels, & nourishing in a small degree. ~~These~~ ~~the fruits of the season~~, ~~butts~~ should be butts rendered gently stimulating by condiments, salted meat, ~~fow~~

V The effects of heat upon ~~their flesh~~ it more especially when the animals that af=
=ford it are recently exercised, often ~~bare~~ renders ~~them~~ it ~~unfit~~ the ~~cause~~ unsuspected Cause of Diarrhea, Colics and dysentery.

fruits
salted fish, salads and all the fruits of the season. Fresh meat should be taken sparingly, if at all. It would be a good practice for our farmers to reverse the times in which they consume their fresh and salted provisions. ~~They would escape many of the diseases of the summer~~ ~~by~~ By eating their fresh meat in winter at which time it might be kept for weeks without salt, and their salted meat in summer, they would probably escape many of the diseases of that season particularly the Dysentery which prevails more in country places than in cities chiefly from farmers living ~~wholly~~ up ~~upon~~ habitually upon salted meat than in other ~~season~~ parts of the year. The drinks during the summer should be cyder-porter and ale diluted

with water ~~or~~ at meals; ~~and~~ ~~[illegible]~~ but if any liquids should be required in the intervals of meals, none of them should be tasted. Water, or milk ~~or~~ and water, or molasses and water ~~should~~ alone should be resorted to to allay thirst. All other drinks increase it. —

The aliments ~~and~~ in the Autumn should be the same as in Summer. ~~For~~ In addition to the morbid effects of the Summer heat upon animals, they are sometimes rendered unhealthy by feeding in pastures in which they inhale a large quantity of putrid exhalations, for which reason ~~they~~ up ~~of their flesh~~ fresh meat should be eaten ~~with more taste~~ ~~with them advantage~~ ~~with more caution~~ than in Summer. The quantity of ~~distilled~~ fermented liquors may be ~~increased, or~~ taken in a less diluted state ~~as~~ with food, more especially if ~~[illegible]~~ the ~~[illegible]~~ mild Autumnal

fevers of our Country should be epidemic. - If the intermittent fever should rise to the grade of yellow fever, fresh meat should not be tasted, and ~~distilled~~ fermented liquors should be taken ~~with~~ in small quantities, or not at all, according to circumstances. ~~In the~~ ~~these two~~ The former diet elevates the system above, the latter ~~it~~ reduces it below the ~~these~~ the points of excitement at which the exhalations ~~which~~ ~~that~~ produce ~~of~~ those opposite grades of ~~bi~~ intermittent fever, usually produce their morbid effects. —

The ~~the Winter~~ cold and gloom of winter like the ~~land of Tears dull Care~~ depression of old age, call for more generous aliments and drinks than any of the seasons that preceded it. ~~It is at this time that convivial pleasures are~~

~~most safe and agreeable~~. The Sirloin of beef, the sparkling ale, and the ~~bumper~~ full glass of wine when opposed to the debility induced upon the system by cold, and the subsequent exercises to which it disposes, seldom ~~do any harm~~ ~~impair~~ under the convivial ~~table~~ friendly to health ~~or constitution~~ or life. ~~It is to when it they are taken in moderation. In the midst of~~ It is only when its pleasures are enjoyed in excess, that they are hurtful. It would be well if a person ~~who~~ were employed ~~to stand in at the end of~~ as a spectator in all large ~~eating~~ dining companies, whose office should resemble ~~be~~ that of the monitor of the ~~Roman emperors, it should be~~ Roman Emperor, and who was when he saw any person eat or drink more than ~~the~~ proper for him, ~~to tell out to him in~~ should whisper in his ear ~~the language addressed to the Roman emperors~~ "Remember there is sickness in that ~~there not unwholesome~~ plate, and death in that bottle!"

The transition is a natural one, from mentioning the ~~of~~ bad effects of naps in eating and drinking, ~~upon health & life~~ ~~to take notice the effects of a poverty of~~ aliment and ~~drinks upon health and life, and~~ to point out the means of obviating the effects of a poverty of aliments & drinks upon health and life, an evil to which the citizens of ~~our~~ the United States are sometimes exposed not only ~~from~~ in sea voyages in common with other nations, but from hunting, and travelling in new and unsettled countries.

~~1 Tying a belt tight round the belly. The Indians use this remedy against hunger. The Copts belt used by the Copts in Egypt as a part of dress, probably serves the~~

1. V Drinking Water. ~~or exposing the body to the external Air at night so as to imbibe the dew where water cannot be obtained.~~ Redi found by many experiments that animals that drank water lived much longer under equal circumstances than those that did not. Exposing the body to the external Air at night so as to enable it to imbibe the ~~dew~~ dew, where water cannot be had, has been found to preserve and prolong life where there has been a total want of food.

The means for this purpose which have been suggested by Accident, or reasoning, and ~~some purposes~~ ~~to~~ sanctioned by experience are V

2 The Use of certain calcarious substances particularly the powder of Calcined Oyster Shells. They act by absorbing the Acid evolved in the Stomach from the diseased ~~fluids~~ ~~by~~ action induced in it by hunger. ~~Saw dust~~

3 Saw dust, more especially that which is ~~made of~~ obtained from the hickory, the cedar, and larger durable trees. Dr. Franklin was once threatened with ruin by a man of great influence in Philadh. whom he had ~~offended~~ inadvertently offended by a ~~publication~~ paragraph in one of his newspapers. The Doctor invited a few of his friends to dine with him the next day. His dinner consisted of some weak mutton broth, and a pudding. After dinner he asked his Guests how they liked his pudding?

✓ A brother of the Doctor, who was a sea captain kept a cargo of horses alive for three weeks by feeding them upon nothing but the fine chips of cedar moistened in water, & afterwards sprinkled with a little flour.

4 Opium ~~or~~ in substance, or liquid Laudanum. The Turks ~~also~~ depend upon the pain ~~and fatigue of~~ of hunger, as well as fatigue of body by small doses of this medicine taken in succession of this medicine.

* The Russian peasants obviate hunger by eating half baked bread, and the Irish peasants do the same thing by eating half boiled potatoes

~~they~~ all said very well. He then told them it was prepared from Sam dust with a ~~[illegible]~~ few spoonfuls of flour, ~~and~~ that ~~this whole dinner had~~ the whole dinner he had given them had cost him but 1 sixpence - and that ~~costs thus but~~ his reason for giving them so frugal ~~and~~ a meal ~~was~~ he said ~~show the he~~ was, to determine a simple question, and that was ~~a man~~ ~~[illegible]~~ ~~being the name of the gentleman he~~ ~~had offended had thrown to ruin him,~~ and ~~that he was asked~~ whether they thought it were possible to ruin a man that could not only dine himself, but entertain his friends ~~upon~~ for the trifling sum he had mentioned.

5 The use of Tobacco. ~~It is~~ This weed so useless or hurtful when habitually used, has in many instances obviated the

remedies for hunger will be admitted by recollecting that animal life is sup-
-ported by substances taken into the stomach which act only by their stimulus, or weight, without con-
-taining a ~~particul~~ particle of nourish-
-ing matter in them.

pain and danger of hunger. It acts by creating a discharge of saliva into the stomach, ~~blunting the sensation of hunger~~ ~~which~~ also by blunting the sensation of hunger. The ~~rose~~ efficacy of the ~~two~~ three last

6 The smaller discharged in sweats. They contain a portion of dissolved ~~fat~~ fat, and of course a ~~some~~ small quantity of nourishing matter. Mr Hollowell and several of his fellow sufferers in the black hole of Calcutta were kept alive by feeding upon their own, and each other discharges from the skin.

6 ~~The~~ The smell of certain acid or pungent substances. There is an account ~~of~~ in the German Ephemerides of a woman who was kept alive nine days by constantly smelling the Oil of Amber.

7 ~~Bathing the body in salt or fresh water. It lessens the pains of hunger~~

v/ 8. Tying a belt round the ~~body~~ belly.
The Indians use this remedy against hunger. The belt used by the Copts in Egypt as a part of dress, probably serves the same purpose.

by its action upon the skin, ~~and~~ some of the water is probably inhaled by the lungs. —

When persons are about to be exposed to situations in which it is possible they may suffer from the want of food, ~~contraband provisions~~, they should carry with them a small quantity of those substances that contain the ~~quantity~~ greatest portion of nourishing and stimulating matter in the smallest compass. These are sugar, oil, spirit and liquid laudanum.

The means of obviating thirst where fresh water, and other liquids cannot be obtained are

1 Chewing tobacco. It abated both hunger and thirst in a gentleman ~~Mr Davis one of the poop~~ who ~~escaped~~ was taken off the Rose in blown which vessel in her passage from Charleston to New York in Septem 1806.

2 Chewing lead. This excites a copious discharge of Saliva into the mouth which abates thirst. It had that effect upon two other of the gentlemen who survived the melancholy Catastrophe of the Rose in Blown.

3 Mr Holwell and several of his fellow sufferers in the black hole at Calcutta in the East Indies, were kept alive by sucking their own and each other's linnen wetted

It would give me pleasure to proceed in pointing out the means of preserving health as far they are connected, with the structure and materials of our houses, with air - drips, exercise & the employ=ment of the intellectual faculties, but these would encroach too much upon the more important parts of our course. I shall however glance at them in our pathology.

~~Lo~~ I shall dismiss the subjects of our ~~attention~~ four last lectures, by remar=king that Lord Bacon says that ~~wonderful~~ all ~~kind of~~ Sciences ~~must visit in~~ should be brought down ~~to~~ the business and bosoms of mankind. ~~I have endeavoured to~~

~~If~~ I have failed in ~~to~~ acting up to the rule of this illustrious philosopher in bringing the ~~bad science~~ subjects of the ~~four~~ four last lectures I have delivered down to the business and bosoms of my class, I hope I aimed it at least ~~to the~~

I have aimed to ~~do in the four lectures which I have last delivered, and now~~ I have aimed to bring down the science of health ~~which has composed our four last lectures~~ not only to ~~the~~ your business & bosoms, but to ~~the~~ your appetities - stomachs and constitutions, as well as to those persons who shall hereafter become the subjects of your ~~attention~~ care in the practice of medicine.

with the profuse sweats which were discharged from their bodies under their agony, of from thirst and ~~by~~ the inhalation of bad air. —

4 Bathing the body in salt water; It: by its action upon the skin, lessens the pains of thirst & ~~and~~ some of the vapor of the water ~~is a fresh state~~ (which is always fresh) is probably inhaled by the lungs. not absorbed by pores. skin a coat of mail.

~~The means which are intended to p~~
To protect ~~us~~ from the injuries of
an open sky, and inclement weather,
houses have been the habitations of man in his
civilized state
~~years~~ in all ages & countries. ~~But~~ to
render them subservient for the pur-
-poses ~~for~~ which they were intended,
~~that is the preservation of health & life,~~
it will be proper to make a few
remarks upon their situation, materials, and ~~their~~
form, ~~this~~ ~~so as from~~ ~~an agreeable~~ ~~a healthy~~
~~temperature of air~~ also ~~and~~ upon the means of keeping
them cool, warm & clean, and of defending them from
~~those~~ accidents ~~to~~ which they are exposed,
and which endanger health & life.

✓ South front 1/3 lb fuel.

The situation of a house, or of a collection of houses, should command the utmost attention. The old Romans made it a practice to examine the livers of the animals that fed in the neighbour-hood of the places upon which they contemplated to build their houses, before they purchased them. If these livers were sound, it was considered as a sign that the country around was free from putrid exhalations, for these affect the livers of brute animals in common with the same part in the human species. modern observations has confirmed the propriety of this practice in the United States, for it has been found in many instances

that inflammation, Schirrus, or Ulcers in the livers of domestic Animals ~~are common in the fallow~~ accompany ~~the prevalence in~~ bilious fevers in the Summer & Autumnal months in the human species. —

When this mark of a healthy situation ~~fails~~ is not resorted to, a house should always be sheltered as much as possible from marshy, ~~and~~ mill dams. ~~or stagnant~~ feeble and low grounds, by means of hills or a Close of wood reserved from the forest trees, or planted for that purpose. A situation near a Creek or river is safe, only where the water flows along ~~by~~ ~~over~~ a gravelly or sandy shore. —

Houses in the United States are usually built of logs usually cut from the woods - ~~hewn~~ logs with the bark hewed off them - boards - stones and brick. —

Log houses built of logs with the bark upon them soon decay from the moisture that is confined between the bark and the log. This decay or putrefaction of the wood is accompanied with an unpleasant ~~smell~~ odor, ~~and frequently~~ But this is not all. The vapor ~~issuing from~~ which forms this odor ~~has~~ is of an unwholesome nature. It rendered a whole regiment of American soldiers sickly that were confined in huts made of ~~new~~ logs the second year after they were erected, in the year 1792 upon the

They should ~~now~~ therefore be avoided as the habitations of men.

2 Hewed logs are more safe, - from the more easy escape of moisture from them in consequence of the bark being taken from them.

3 Houses ~~on~~ built of boards thoroughly seasoned are generally healthy. ~~which they continue to be found~~ When the boards decay, they emit an exhalation which has been known to produce remitting and intermitting fevers. This decay may be prevented for many years by being painted, provided it be not done until ~~after~~ they are thoroughly dry. Unless ~~If this~~ this be ~~not~~ attended to, the painting, by

V They are rendered ~~warmer~~ cooler in Summer & warmer in Winter by filling the Space between the inside and outside boards with ~~sawdust~~ Shavings or Sand. — This ~~helpers~~ Sapp destroyed by water soaking — here

VI This is the case in a more especial manner with Stone for some time after it is taken out of the ground, for the vegetable and mineral smallers which adhere to it undergo such Changes from the action of Air upon them as to emit an unhealthy Vapor. This Source of disease was so universally admitted in Ancient Rome that a house was never inhabited by her wealthy Citizens Until after it had been built one year.

~~VII It is customary in some places to~~

confining the moisture within the boards, accelerates this decay. 4 ~~Brick~~ Stone and brick consequently healthy and ~~the~~ ~~cannot~~ durable houses, ~~and when~~ They are dryer before, than after they are plastered from ~~the bee~~ their absorbing the moisture that settles upon them. But they are not the more healthy upon this account, ~~for~~ for matters capable of putrefaction lodge in their interstices, and thus infect the air of the house. It is by preventing the exhalation of this vapor probably, that plaster and frequent white washing have been found in all Countries to assist in preventing ~~fevers~~ ~~tender~~ houses ~~healthy~~ from those ~~fevers~~ diseases which are generated by domestic ~~causes~~ filth.

A house should always when it is practicable, be placed upon an elevated piece of ground. ~~The~~ ~~Thoroughfare~~ front ~~parts of the house~~ should be exposed to the South in the United States. This position renders a house cooler in Summer and warmer in Winter from ~~the~~ any other exposure.

~~In the~~ ~~The windows should be as furious so~~ In country ~~houses, an advantage~~ where there is plenty of room will arise ~~from having houses should be built with~~ ~~houses~~ ~~out~~ they should be built without Cellers. ~~and~~ generate foul air ~~which~~ from a Variety of sources. ~~and they render a house cold in Winter.~~ the usual contents of ~~the~~ Cellers should be kept in a Cave dug for the purpose, with a small opening to communicate with the external air in the neighbourhood of the house. ~~The~~ Where this ~~rule~~ practice is not followed, ~~the Cave~~ there should be no communication with ~~any~~ the Celler except through the medium of an external Celler door, or ~~there~~ there should be a chimney in the Celler. ~~The advantage of~~ From the

~~a chimney and it~~ constant renewal of the air by means of a Chimney, provisions are less apt to become mouldy than where this is not the case, and the Cellar is rendered a less ~~[illegible]~~ fregnant cause of Disease. In Cities this practice should be universal.

Large Rooms with high Ceilings are ~~[illegible]~~ cooler in ~~[illegible]~~ hot weather than small ones. ~~High Rooms~~ In the ~~the~~ Dome of St Paul's Church ~~in London is a~~ the mercury is always 8 degrees lower in ~~hot weather~~ summer than in any of the common dwelling houses in London. In the Bank of Pennsylvania it descends 8 degrees in the same season, below ~~way~~ its standard in every other part of the city of Philadelphia.

The windows of a house should open in a direction opposite to each other. They will be cooler in summer & warmer in winter, when they descend to the level of the

Ground floors have been found to be more healthy than those of wood. They act by absorbing filth and heat. The ~~[illegible]~~ comparative healthiness of the Chinese in their crowded cities, and of the Indians in their filthy wigwams, depends in part upon their eating - sleeping - and living upon ground floors. Count Rumford first suggested the ~~great healthiness~~ advantages of ~~ground floors~~ earthen floors above wooden floors for military hospitals. They were adopted with great success by the American Army during the revolutionary war. They ~~may~~ should be used in Kitchens in warm weather, at which time they are most necessary, & calculated to be most useful.

floor. ~~Both sashes Should be made to rise and~~ ~~fall~~ The fewer windows there are in a house, compatible with a sufficiency of light, the better. ~~They~~ ~~houses are thereby rendered~~ The heat of the ~~cetal~~ air is ~~cooler in summer~~ thereby lessened in summer, and its cold, ~~&c~~ in winter.

V To prevent disease, after a house is finished it should not be inhabited too soon after it is plastered.

After a house is occupied ~~diseases~~ diseases sometimes originate from the following unsuspected sources.

1 The putrefaction of wood put up for fuel in a green state in a cellar. An instance of a ~~remitting~~ remitting fever occurred annually from this cause in Philadelphia many years ago. It was prevented by ~~to carrying to buy in~~ laying in dry wood for fuel, ~~afterwards~~ as soon ~~of~~ as the

3 V The water used by a family is sometimes ~~is some times of an unwholsome quality from~~ impregnated naturally or accidentally ~~impregnation~~ with some mineral substances. A large family suffered ~~for~~ for many years in Worcester the late Dr. Wall tells us from paralytic & bowel Com=plaints. after the death of eight of them it was discovered that their sickness and mortality arose from drinking water from a pump in which the bucket ~~was~~ played in a leaden cylinder, ~~which was evidently~~ and which exhibited marks that the water had acted upon it. see also from Dalrell ~~pp~~ 5 path. on water

4 Air which has long been confined in a ~~room~~ house. ~~The~~ Its hurtful effects may be prevented by opening and air=ing it before it is ~~approa~~ occupied. ~~Columbs are often~~ The same

cause of the fever was pointed out by the attending physician to the ~~family~~ of the family.

2 ~~Stagnating~~ Water from rain or other sources stagnating in a Cellar. Many families have sickened, and some of its members have died from this cause. It may be obviated when it arises from rain by or from subterraneous Springs by above the floor of the Cellar, by cutting a Canal round the house, and covering it with boards and earth, or ~~this~~ building an Arch over it. If it arise from a Spring in the Cellar it may be removed by digging a well in it. The water, ~~will from bed~~ if not abundant, will soon concentrate itself in this well in which ~~it is~~ if it should not be inoffensive, it may be made so by covering it with boards, or erecting an Arch of brick or stone over it.

V

precaution should be used ~~every~~ ~~Saturday~~ with Churches ~~that have~~ the day before they are appropriated to public worship especially in warm weather.

~~Often~~ As many diseases arise from the excess of coldness, warmth & want of Cleanliness in houses. it will be proper to mention the means of preventing them from each of those Causes.

1 There have been many disputes con=cerning the effects of cold upon the human body ~~as the Cause of~~ in producing diseases. The controversy may be settled in a few words by remarking that where the Action of the Cold is uniform upon the human body it is not in a certain degree unfriendly to health & life. The Indians do not suffer from it only because they ~~do~~ are constantly exposed to it. Sir John Sinclair mentions the history of a Dr.

Lyne ~~an~~ physician in Ireland who ~~enjoyed~~ lived in uninterrupted good health until he was 65 years old in a house in which the doors and windows were constantly open. He used to say "~~no~~ a house ~~was~~ could not be healthy, unless a dog could get under the door, or a bird get in at a window." A citizen of Philadelphia once told his guests ~~of whom~~ who ~~the author of this work~~ ~~Franklin~~ one, ~~that while~~ complained of the coldness of his dining room, that it gave him a great advantage over his fellow citizens, for as there was no difference between the temperature of his room, and that of the air in the street, he never caught cold by changing his atmosphere. Good health upon the terms that have been mentioned is purchased at a high and precarious price. It requires perpetual vigilance and constant strife to ~~guard~~ protect

the body against being impaired by a warm room, ~~and admitting the habit~~ It secludes from all society not disposed to acquire a similar ~~degree~~ habit of insensibility to cold, and admitting this habit to be acquired, it places a man upon a footing with the farmer, ~~who~~ horse ~~that~~ had been taught ~~to live w~~ by his master to live without eating. The experiment succeeded, but the horse died immediately afterwards.

It is more agreeable to nature, & to the customs of civilized life, ~~to and it is certainly more pleasurable~~, to live above the painful degrees of cold, ~~which~~ in our houses, and & it certainly contributes to health and longevity to subject the body to the alternate action ~~of~~ heat & cold,

more especially when its extremes are limited by the ordinary heat of the houses, and the ordinary cold of the ~~ordinary~~ winters of the United States. Dr. ~~Hilliary~~ Huxham ascribes the healthiness of the climate of Great Britain to its variableness which destroys the dangerous uniformity ~~colour~~ sensibility and in the actions of the ~~the~~ human body. ~~I conclude~~ There should be ~~no~~ medium between ~~now~~ a pleasant warmth in our houses, and uniform cold. All half way ~~hysterics~~ practices upon this subject, are ~~more~~ more ~~dangerous~~ unfriendly to health than either of them. I proceed therefore to mention the means of ~~the~~ promoting warmth in our houses. These are

~~1. making the doors close and windows close by means of listing and removing the doors of closets at a distance from the fire place.~~ —

on warm & cold Bath

see p 215 of Comp: plan
Cook.

on all the predispositions
sum up all in ~~Fever~~ one fever

See diseases from diet &c in No 4.5. of
Pathology - of Health in No 6.
Bring in "Salzmann's" discuss of
education". see No 6 on undue exercises of
mind. Under discuss of education include
1 disproportionate studies 2 sedentary & close
rooms. 3 from Vice want some fresh air &
beds. Bring in on old age from Path No 9
396.
on governing mind - see Path No 7.
See fact from Dr Cutbush on preventing
effects of cold by bibs &c parts exposed
Facts of feet in cold water by Mr Jefferson
& Mr Pinson. Unleavened - biscuit &
half done bread used in Russia
Causes slow of digestion.

1. By means of fires. ~~They should~~ These are either open, or confined in close stoves. ~~of Iron, Lowbrick or Fire Clay~~ Open fires placed upon hearths with Chimneys constructed in the manner directed by Count Rumford. throw out a great deal of heat. ~~and was as~~ The heat is increased by suffering the Ashes to accumulate in the fire place to such a degree as to prevent the wood coming in contact with it. In a room thus Reasoned, the venerable Dr Franklin passed the last winters of his life in Philadelphia. The heat is diffused more extensively through a room, ~~and is same~~ when the ~~wood~~ fuel is placed in ~~an~~ open stoves such as bear the names of this inventors

V They are particularly useful in all large rooms in which entertainments are given in winter. The suffering from the cold at ~~the foot~~ a part of a table ~~room~~ ~~and to a~~ distant from the open fire place, are often very acute, and some times followed by fevers. ~~The heat of the bed~~ In order to obtain ~~the~~ greatest benefit from ~~this heat~~ close stoves ~~should~~ be commenced by means of pipes to all the bed chambers of a house. ~~in order to obtain~~ The bed, which is ~~exposed~~ covered in bed is ~~defended from~~ by this ~~the greatest benefit from the~~ means defended from the cold, ~~and bed body by this means retains its uniform temperature, and~~ ~~aches~~ and toothachs and catarrhs are thus prevented.

Bed rooms are warmed in this manner in Canada, and in several of the northern Countries of Europe. They have been found to be peculiarly agreeable to old people, and are calculated to prevent those sudden deaths to which they are exposed during the night in extremely cold weather.

Franklin and Rittenhouse.

Close Stoves have many advantages over open fires. They diffuse the heat more equably, ~~and~~ by which means it is applied to every part of the body. They save a great deal of labor in the country to ~~in and expense~~ in cutting and hauling wood, ~~in fact~~ man and beast, and a great deal of expense in cities in purchasing it. They save ~~time to~~ all that time to do domestic industry which is lost in ~~waiting~~ ~~still a room is fed~~ supplying an open fire with wood, and in ~~or~~ ~~burning two~~ every hour or two from a remote part of a room to warm the ~~f~~ hands and feet. It is to be regretted that the heat ~~thus obtained~~ of a close stove ~~is disagreeable to many people~~ produces head ach, languor, and sickness in many people. They ~~may~~ have all been prevented in many instances

4 In deriving warmth whether from an ~~fo~~ open fire, or a stove great should be taken to avoid constantly ~~occupying~~ exposing the same ~~part~~ side of the body to it. ~~It will be~~ one side by this means becomes more stimulated than the other, and a foundation is thus laid for several diseases.

4 th The under part of the floors of those rooms which are immediately above the cellar, should be lathed and plastered; ~~would be~~ the warmth of those rooms is thereby ~~very~~ considerably increased. It will be ~~increased~~ still more by filling the space between the floor and the lathing with shavings, sawdust, ashes or sand. —

by placing a bowl of water upon the
stove. The evaporation of this water dim=
=pers the heat, and communicates
something to the air which obviates
its unpleasant and offensive qualities.

2 The fuel for fires in the United
States is wood and Coal. The vivid flame
of hickory wood has been known to pro=
=duce inflammation of the eyes. The
vapor emitted by Coal has been found to
~~injurious to the lungs~~ increase a cough. They should both be
avoided by persons subject to those diseases.

3. The heat of a room in what ever way
it is produced is confined in some countries
by double doors and windows. In the United
States what is called listing, or nailing the
of cloth to the sides of the doors and windows
is resorted to for that purpose. —
~~part of the flues of those ovens~~ ~~flues~~ which are in indicating
~~that part of a flue~~ above the cellar should be lathed & plastered. A

The excessive heat of a house in summer should be moderated by the following means.

1 In the Country by piazzas and trees

2 In Cities by ~~shutter~~ closing ~~the doors and~~ not only the windows ~~and~~ but the window shutters of ~~the house during the day~~ of all those rooms which are not occupied in the day time. A room thus defended from the sun is deeper cooler than a room that is exposed to it. The windows should be opened after night ~~when they are~~ to admit cool and fresh air.

3 By keeping the fire places and chimneys open. ~~By this means a constant circulation of air is kept up in a sitting room and a bed chamber, for~~ The air ~~being warmer above and below~~ in the chimney ~~than the air that is in it descends by its weight in the~~

It is in consequence of this, that the coolest seat in a room is near to a chimney in hot weather.

Here, one third of cooling a room.

~~the day time during the day, and being~~
~~The heat of furnaces when exposing is~~
~~lipped, cooler cooler than the air~~
being cooler than the external air above it, or
the air in the house, descends during
the day, and being warmer in the
night than the air ~~in the~~ above, &
~~below it~~ in the house, it ascends during
the night, and thus a perpetual and
cooling circulation of air is kept up
in a sitting room and a bed chamber.

3 ~~It~~ Heat is less ~~powerful~~ felt upon the
lower floor of a house than in its
upper stories from the contiguity of
the earth ~~abstracting~~ favouring its
abstraction.

Cleanliness is essential to health in every house. ~~The~~ It should extend to the sinks where ~~the~~ a cellar kitchen has made them necessary. They are rendered inoffensive by means of what are called in London sink traps - that is, by ~~two to~~ a small well communicating with a drain by means of a grate which ~~intercepts any~~ permits nothing but water to pass through it, and which penetrates into the earth. The matters retained by the grate, are easily taken away by the hand once or twice a week. Where this contrivance is not used, sinks should be cleaned ~~once every month~~ as soon as they emit the least offensive odor. ~~Let~~ From the neglect of this direction, ~~not only~~ servants, ~~but a whole family~~ have often been infected with bilious fevers.

2 The offals of the kitchen whether of vegetable or animal nature where cows, or hogs are not ~~k~~ at hand to consume them, should be thrown into the fire. In destroying those matters in this way, we imitate the practice recommended by in the Levitical law

3 It is common to throw the ~~linen~~ body and bed linen of a family into a basket, or to enclose it in a bag, where it is suffered to remain until it is taken out to be washed. This linen is often impregnated with perspiration, & sometimes moist from sweat in consequence of which it undergoes a change

when deprived of air which disposes it to produce ~~that~~ the same kind of fever which is generated in jails and prison ships from filth and confinement. Washer women have it is said been thus infected with that fever. The ~~source~~ cause of it should be obviated by exposing the linnen to the air ~~on beds~~ in an open room or closet before it is sent to ~~the~~ be washed. —

3 Every ~~part~~ room & closet of a house as well as the Cellar and kitchen should be frequently ~~open~~ aired, and if necessary, cleaned. It would be a good practice if the Inspectors of Nuisances in our Cities ~~would~~ were permitted to imitate the ~~practice~~ conduct of Dean Swift who after entering the ~~parlour~~ drawing room of a female friend with

whom he was invited to dine, refused to sit down. but suddenly walked up Stairs, and examined every room and closet in her house. upon returning into her ~~parlour~~ drawing room, he said!! I perceive madam, you are a good house wife. I give you no credit for the neatness and cleanness of this room in which you expected to see company, but I have found ~~all~~ every part of your house in the same neat ~~and~~ order!!

4 Rats and mice by dying in the hollow places of walls emit ~~an offensive~~ a putrid odor which is dangerous to health. ~~They~~ ~~Their~~ ~~should be destroyed by traps, or poison~~ and

V ~~And~~ It was probably to prevent the extensive mischief they are capable of doing, that even the sight of them is all so generally ~~attended~~ with fear or hatred in all ranks of people.

98/2

There are ~~four~~ three ways of destroying them

1 by means of Cats. 2 by means of traps. 3 by ~~putting on~~ mixing Arsenic with such aliments as they are fond of, and placing them in this way. This method of destroying rats should never be adopted. The poison intended for them has sometimes been eaten by Children and with fatal consequences. Moreover ~~when~~ the rats when killed in this way, putrify in their holes, and thus infect a whole house. ~~such~~ But they may be driven out of a house ~~catching them~~

4 By ~~tying a bell round the neck of one of them and~~ fixing ~~some~~ a mark of deformity upon a living rat and letting him go afterwards. Shaving or burning the hair off his skin has been found to ~~answer~~ answer this purpose. All the rats of a house ~~to~~ fly from him.

mosquitoes by their bites produce inflammation, sores and fevers. ~~This Insect Flies annoy us by their bites and sores They~~ Their generation ~~near a house~~ should be prevented by removing all stagnating water from near a house. This ~~to~~ annoyance may be obviated in a certain degree by protecting those parts of the body which are most liable to suffer from them by means of coverings of leather, ~~or~~ in the day time, and by what are called Mosquito Curtains during the night.

Flies though seldom or never a cause of disease, are sources of Uneasiness ~~to~~ and Vexation to most people. They are destroyed by first allurring them to a board ~~covered~~ covering with molasses and connected with the Ceiling of a room or a piazza, and then exploding gun powder under them. They may be kept out of a bed room by keeping it shut up in the day time, or they may be driven out of it by means of a handkerchief or napkin after night.

The return of ~~others~~ rats when thus destroyed, or driven away should be prevented by repairing the injuries which time does to all houses. Whenever they appear, they are a call for the mason ~~and~~ or the Carpenter. ~~They are kindly sent to teach us Economy and Cleanliness.~~ They may be considered as the first warning of the approaching waste of our property, & as the punishment of the want of clean=liness. ~~They are in the latter view, of than,~~ the lice ~~of our houses~~ and fleas.

5 Bugs by ~~propagating their~~ their poisonous bites & peculiar fator sometimes ~~disorder~~ prevent sleep and thus bring on diseases upon weak and irritable habits. They are like rats and mice the punishment of bad housekeeping. They are to be prevented by cleanliness. The following

Diseases of the eyes are often contracted by means of smoke; and Colds are sometimes taken by sitting with our windows or doors partly open, to let it out of our houses. It is of consequence therefore to point out its causes, and its remedies. – Smoke is retained in a room instead of being carried off by a chimney, ~~by the follow~~

1 by the room being too small ~~too~~ in proportion to the size of the fire place. This is only to be cured by contracting the fire place.

2 by the room being ~~too~~ so tight as to exclude the passage of all air through the sides of the windows and door. This often occurs in new

V 3. By the door of the room being placed so near the fire place as to ~~permit~~ pour ~~too great a quantity of~~ air upon it ~~at once~~ faster than it can be rarefied, by which means it drives the smoke into the room. If it cannot be prevented ~~by removing the door to a greater distance from the fire place,~~ or by causing the door to open from the fire, the door should be removed to a greater distance from it.

houses, and ceases upon ~~the shrinking of the wood of which the doors & windows are made~~. Smoke from this cause is cured by a Ventilator, or a moveable pane of glass in the upper part of the room door. ~~But~~ It ceases of itself upon the shrinking of the wood of which the doors and windows of the room are made. V

4 By the large size of the funnel of the chimney immediately above the fire place. Smoke from this cause is ~~Count Rumford has this~~ prevented by contracting this funnel agreeably to the plan advised by Count Rumford, and adopted with general success in many parts of the United States. ~~The~~

5 By a want of proportion between the width of a chimney and its

height. In the lower story, the funnels of chimneys ~~they~~ should be wider than in the upper stories of a house.

6 By the shortness of ~~the~~ funnel. ~~This~~ smoke from this cause can only be remedied by lengthening the funnel, or opening its width.

7 By the communication of two or more chimneys with each other. Smoke arises in this case from a deficiency of rarefied air to carry up all the smoke that is produced in the usual fire places. ~~This~~ It is to be prevented by stopping up this communication, or by never making a fire in but one of the fire places at a time.

8 By ~~the Chimney too~~ the tops of neighbouring houses, or hills projecting above the top of a Chimney, which enables the wind ~~when it blows blows from a certain Quarter~~ to drive the smoke backwards into a room. ~~This~~ It is to be prevented by raising the Chimney above the adjacent houses or hills; ~~and~~ but if this cannot be done by placing what is called a Tunnecap upon the top of the Chimney, that is a cap covered above, and closed on three of its sides, and so ~~made~~ to as to oppose those sides to the wind that occasions the smoke.

9 By the ~~Chimney~~ funnel of the Chimney being narrower above than it is below, or by the irregularity of its course upwards. ~~This is a very frequent Cause of smoke from a Chimney~~ ~~The course~~ of smoke

from this cause is obviously from the resistance which the ~~fid~~ converging sides of the Chimney give to the smoke ~~in proportion~~ and ~~at those places where~~ to the diminution ~~of the action~~ ~~proportion to the diminution of the action~~ of the rarified Air upon it. ~~upon its acts with a diminished force upon it~~ the remedy for ~~from~~ smoke from this cause ~~b~~ is to lessen the resistance ~~to the smoke by~~ that is given to its passage upwards and out of the Chimney, by making the Chimney as wide above as it is below ~~or proportion a little~~ It will more effectually ~~prevent~~ carry off the smoke if it made a little wider.

4. To prevent the descending from the roof, or ascending from the first story, form by means of blankets, a kind of dam on each of the intermediate stories, near their staircase, that shall confine the water that is thrown upon the roof, or into the windows. It will effectually check the progress of the fire downwards or upwards in brick and stone houses.

5. To prevent fire spreading to adjoining houses, cover them with wet blankets.

6. To extinguish fire in a chimney, shut the door and windows of the room. Throw a quart, or more of common salt into the fire. Hold, or nail a wet blanket before the fire place. If these means fail, throw a wet blanket down the chimney from the roof of the house.

There is a method used in some countries of glazing chimnies when they are built by burning common salt in them, which renders them so smooth, that no soot can adhere to them. Chimnies so constructed can never take fire.

Ladders are commonly used as the means of conveying persons from the windows of houses on fire. Would not a long and stiff pole, with a rope fixed at its upper end, be more portable, and convenient for this purpose?

at the same time close all the fire places that communicate with by chimneys with the chimney on fire.

12 Protect your house from fire, ~~by~~ from lightning by means of ~~a rod~~ an electrical ~~rod~~ conductor. —

Mr. John Westley when a
en out of a window in his fa-
hilst it was in flames, by one
upon the shoulders of another.
may be used to rescue persons
story of a house on fire, where
cannot be had with sufficient
r expedition.

~~A WATCHMAN.~~

Life ~~and to~~ is often endangered from fires, and ~~their~~ health is ~~likewise~~ often is impaired by losses, bruises, and the terror con=nected with the destruction of a house by fire, ~~fire~~ where life is not de=stroyed. ~~To~~ To obviate these evils, ~~I shall~~ the following directions which were first pub=lished by the Author in Claypoole's American Daily Advertiser ~~then~~ on the 3rd of February 1797.

Sudden death, or distressing diseases are sometimes brought on by means ~~by~~ of strokes of lightning. They are to be prevented when ~~out~~ in the open air, by avoiding the shelter of trees. In a house they are to be prevented by means of an electrical conduc=tor, but where this has not been confide=red as an essential part of a house, care should be taken during a thunder storm

Close all the fire places connected in one Chimney.

Philadelphia, February 3.

For the American Daily Advertiser.

DIRECTIONS
For preventing Calamities by
FIRE,

Recommended to all HOUSE-KEEPERS, *to be pasted up in their Kitchens, or other parts of their Houses.*

1. KEEP your Chimnies and Stove-pipes clean by sweeping them at least once every month.

2. Never remove hot ashes in a wooden bucket, or a wooden vessel of any kind, and look well to the ash hole.

3. After sweeping a hearth, see that the hearth brush does not retain any particles of fire, before you hang it up in its usual place.

4. Oblige all your servants to go to bed before you, every night, and inspect all your fire places, before you retire to rest.—For fear of accidents, let a bucket of water be left in your kitchen every night. The writer of these directions once saved his house from being consumed by fire, by this precaution.

5. Do not permit a servant to carry a candle to his bed room, if he sleeps in an unplastered garret.

6. Cover up your fire carefully every night in ashes. Let the unburnt parts of the billets, or chuncks of wood, be placed next to the hearth, by which means no sparks will be emitted from the wood. Pour a little water upon the burning ends of the wood which are not completely covered by the ashes. Place before the fire a fender made of sheet iron. This contrivance was well known in England many years ago, by the name of a *coverfeu*. It has lately received from a top being added to it, the name of a *hood*.

7. Remove papers and linen from near the fire when you leave it, to a remote part of the room.

8. Shut the doors of all the rooms in which you leave fire at night. By thus excluding the supply of fresh air, you will prevent a flame being kindled, should a coal or spark fall upon the floor, or upon any other combustible matter in the room. The smoke which issues from this smothered fire will find its way into every part of the house, and by waking the family, may save it from destruction.

9. If sickness, or any other cause should oblige you to leave a candle burning all night, place it in such a situation as to be out of the reach of rats. A house was once destroyed by a rat running away with a lighted candle for the sake of the tallow, and conveying it into a hole filled with rags, and other inflammable matters.

10. Never read in bed by candle light, especially if your bed be surrounded by curtains.

11. Strictly forbid the use of segars in your family at all times, but more especially after night. May not the greater frequency of fires in the United States than in former years, be ascribed in part to the more general use of segars by careless servants and children? There is good reason to believe a house was lately set on fire in Northumberland county, by a half consumed segar, which a negro woman suddenly threw away, to prevent her being detected by her master in the unhealthy and offensive practice of smoaking.

In case of fire, attend to the following directions, to prevent, or restrain its terrible consequences.

1. Do not open the room or closet door where

The famous Mr. John Westley when a child, was taken out of a window in his father's house whilst it was in flames, by one man standing upon the shoulders of another. This practice may be used to rescue persons from the first story of a house on fire, where other means cannot be had with sufficient convenience or expedition.

A WATCHMAN.

Legislature of Pennsylvania

after night. May not the greater frequency of fires in the United States than in former years, be aſcribed in part to the more general uſe of ſegars by careleſs ſervants and children? There is good reaſon to believe a houſe was lately ſet on fire in Northumberland county, by a half conſumed ſegar, which a negro woman ſuddenly threw away, to prevent her being detected by her maſter in the unhealthy and offenſive practice of ſmoaking.

In caſe of fire, attend to the following directions, to prevent, or reſtrain its terrible conſequences.

1. Do not open the room or cloſet door where you ſuſpect the fire to be, until you have ſecured your family, and your moſt valuable effects, nor until you have collected a quantity of water to throw upon the fire, the moment a freſh ſupply of air excites it into a flame. Where water cannot conveniently be had, try to ſmother the fire by throwing two or three blankets over it. A Britiſh ſea captain once ſaved a king's ſhip by throwing himſelf with a ſpread blanket in his arms, upon a fire which had broken out near the powder room. He was penſioned for life, for this wiſe and meritorious act.

2. In caſe it be impoſſible to eſcape by a ſtair caſe from a houſe on fire, ſhut the door of your bed chamber, and wait until help can be brought to ſecure your eſcape from a window.

3. If ſafety does not appear probable in this way, wrap yourſelves up in a blanket, hold your breath, and ruſh thro' the flames. If water be at hand, firſt wet the blanket.

4. To prevent fire deſcending from the roof, or aſcending from the firſt ſtory, form by means of blankets, a kind of dam on each of the intermediate ſtories, near their ſtair-caſe, that ſhall confine the water that is thrown upon the roof, or into the windows. It will effectually check the progreſs of the fire downwards or upwards in brick and ſtone houſes.

5. To prevent fire ſpreading to adjoining houſes, cover them with wet blankets.

6. To extinguiſh fire in a chimney, ſhut the door and windows of the room. Throw a quart, or more of common ſalt into the fire. Hold, or nail a wet blanket before the fire place. If theſe means fail, throw a wet blanket down the chimney from the roof of the houſe.

There is a method uſed in ſome countries of glaizing chimnies when they are built by burning common ſalt in them, which renders them ſo ſmooth, that no ſoot can adhere to them. Chimnies ſo conſtructed can never take fire.

Ladders are commonly uſed as the means of conveying perſons from the windows of houſes on fire. Would not a long and ſtiff pole, with a rope fixed at its upper end, be more portable, and convenient for this purpoſe?

at the same time close all the fire places that communicate with by chimneys with the chimney on fire.

12 Protect your house from fire, ~~by~~ from lightning by means of ~~a rod~~ an electrical ~~rod~~ conductor.

Fireplaces connected in

The famous Mr. John Weſtley when a child, was taken out of a window in his father's houſe whilſt it was in flames, by one man ſtanding upon the ſhoulders of another. This practice may be uſed to reſcue perſons from the firſt ſtory of a houſe on fire, where other means cannot be had with ſufficient convenience or expedition.

~~A WATCHMAN.~~

Legiſlature of Pennſylvania

s American D

FRIDAY, FEBRUARY 3,

DELPHIA:—Printed b DAVID C. and SEPTIMUS C

In Council, Annapolis January 5, 1797.

ORDERED, That the Resolutions passed by the General Assembly at their last session, respecting certificates and bills of credit, be published eight weeks successively in one of the Philadelphia and Alexandria news papers, and in one of the Baltimore, Frederick Town and Easton papers, and the Maryland Gazette. By order,

NINIAN PINKNEY.

By the House of Delegates. December 27, 1796.

1. RESOLVED, That the Treasurer of the Western Shore be, and he is hereby authorised to pay off and discharge the principal and interest due on all certificates heretofore issued by the state of Maryland, other than those distinguished as fraudulent ones—Provided the same are brought into the Treasury for payment on or before the first day of July, one thousand seven hundred and ninety seven.

2. Resolved, That all holders of certificates heretofore issued and funded by the state of Maryland, bring the same to the Treasury of the Western Shore for payment of principal and interest, on or before the first day of July next, and that no interest on any certificates heretofore issued which shall accrue after the said first day of July, one thousand seven hundred and ninety seven, shall be paid thereafter, nor the principal sum until after the end of the next session of Assembly.

3. Resolved, That such part of the five months pay due to the officers and soldiers of the Maryland line, and due for services on board the barges, as shall not be demanded of the Treasurer of the Western Shore, on or before the first day of July, one thousand seven hundred and ninety seven be not paid to any person or persons demanding any part of the same until after the end of the next session of Assembly

4. Resolved, That the Treasurer of the Western Shore be and he is hereby authorised to pay off and discharge the amount of principal and interest of such bills of credit of the emission under the act of June session, one thousand seven hundred and eighty, as may be produced and brought into the Treasury, on or before the first day of July next.

5. Resolved, That if any of the holders of bills credit emitted in virtue of the act of June session, one thousand seven hundred and eighty, do not bring the same into the Treasury of the Western Shore for payment, on or before the first day of July, one thousand seven hundred and ninety seven, that all interest from that time cease thereon, and the principal not be paid until after the end of the next session of Assembly.

6. Resolved, That the above resolutions be published for eight weeks successively, in one of the Philadelphia and Alexandria news papers, and in one of the Baltimore, Frederick Town and Easton papers, & the Maryland Gazette, that the creditors of the state may be notified that funds are prepared for the discharge of their claims.

By order,

Wm. HARWOOD, Clerk.

By the Senate, Dec 27th, 1796.

Read the first time, and ordered to lie on the table. By order,

A. VANHORN, Clerk.

By the Senate. Dec. 29th. 1796.

Read the second time and assented to.

By order,

d8w A VANHORN, Clerk

Now discharging at Penrose's wharf, the next below Almond street, from the ship Arethusa, a quantity of Porter and Wine BOTTLES, for sale at the reduced prices of 4s. to 5s. per dozen, and on a liberal credit, according to the quantity purchased. For further particulars, apply to WILLIAM & SAMUEL KEITH.

No. 279, South Front street.

Also, for sale, Fifty Ton of COALS.

Fresh Garden, Grass and Flower

d8w By order,
A VANHORN, Clerk

Now discharging at Penrose's wharf, the next below Almond street, from the ship Arethusa, a quantity of Porter and Wine BOTTLES, for sale at the reduced prices of 4s. to 5s. per dozen, and on a liberal credit, according to the quantity purchased. For further particulars, apply to WILLIAM & SAMUEL KEITH.
No. 279, South Front street.
Also, for sale, Fifty Ton of COALS.

Fresh Garden, Grass and Flower Seeds, Roots, &c. &c.

This Day Landing from the ship Eagle, Captain Fosdick, from London, and for sale by
GOLDTHWAIT & MOORE,
Corner of Walnut and Second streets, a most capital and extensive assortment of

Garden, Grass and Flower Seeds, Roots, &c.

Among which are

Five kinds	Asparagus	Three kinds	Cresses
Four	Berecole	Twelve	Onions
Twenty five	Beans	Thirteen	Radish
Six	Beets	Fifteen	Turnip
Eleven	Brocoli	Fifteen	Peas
Twenty six	Cabbage	Six	Savoy
Six	Carret	Four	Parsnip
Three	Cauliflowers	Twenty three	Melon
Five	Celery	Twenty one	Lettuce
Ten	Cucumber		

Common and lemon Thyme
Curled leaf and sprigged Parsley
Pot Marygold Pot Marjorum
Balm Thyme Mangel Wurtzel
Leek Kail Shallots
Rape Seed Rye Grass Saint Foin Lucerne
Red and white Clover Timothy, &c. &c.

With a curious collection of the most esteemed
FLOWER SEEDS & ROOTS.

Being the most extensive assortment ever imported in this city. The above are from a capital Seedsman in London, and are warranted fresh and good. Printed catalogues may be had by applying as above. Dec 26 ¶

THE PARTNERSHIP BETWEEN
Israel Whelen and Joseph J. Miller,

TRADING under the firm of Whelen and Miller, was dissolved, by articles of agreement, on the 15th day of February last; but the said Joseph had a right, by the said articles, to use the name of the firm for a certain time, which has now expired, and of which this public notice is given.

All persons indebted to the said co-partnership will please to make payment to Joseph J. Miller, to enable him to adjust and discharge the debts due from the company.

ISRAEL WHELEN,
JOSEPH J. MILLER.
Philadelphia, December 20, 1796. †

THIRTY HOGSHEADS
4th proof Jamaica Spirits,
20 hhds. St. Croix Rum
40h hds. Sugars
A quantity roll Brimstone—For sale by
JOHN STEINMETZ, junr.
Jan. 10 20sp No 69, north Water street.

House and Smith's COAL,
From England, now landing and for sale by
Dec 30 ISAAC PHIPPS,
¶ Corder on Almond street wharf.

to avoid sitting near a Chimney, or the walls of a house, ~~and trees~~ also standing near ~~the~~ an open door or window. It bed should be removed in the night, During ~~in~~ a ~~to~~ thunderstorm to nearly the Centre of a room. ~~During the~~

Our ~~Dress~~ Clothing

The first use of Dress was to prevent a sense of Shame to which the loss of primeval innocence ~~and nakedness~~ exposed the parents of the human race. It serves the further purposes of defending the human body from those degrees of ~~heat~~ heat, cold and ~~heat~~ moisture which otherwise excite pain and become the cause of many diseases. see Botanics on pathi 106.

~~The materials with which~~ Clothing employed for ~~Clothing~~ in the United States is composed of ~~wool~~ - ~~Linen~~ - ~~Cotton~~ silk, flax & cotton ~~manufactured~~

This part of our Subject divides itself into the materials, and the form of Clothing, ~~for the different sexes, ages~~ and afterwards into those kinds which are proper for the different seasons, sexes, & ages. ~~for the dif. seasons of the year~~.

The materials of which Clothing is composed are wool, ~~hair~~ ~~Cotton and linen~~ silk-fur-leather, all of which ~~four~~ ~~the first three~~ are obtained from Animal substances, and cotton and flax which are ~~the two last are~~ obtained from vegetables. The former have deservedly been considered as affording the most healthy materials for Clothing. They ~~are less apt to cause~~ selvages generate disease by retaining the perspiration. This is one reason why the Chinese who wear silk garments ~~till they~~ are less ~~of~~ subject to the fevers which arise from human miasmata under many of the other circumstances which produce them. Some ~~They~~ retain the heat of the body longer than ~~the best of~~ Clothing from vegetables, & when wet with ~~incessant~~ rain they are not ~~less~~ disposed to check perspiration. It was remarked during the American revolutionary war

the soldiers of ancient Rome. This healthiness from this and ~~some~~ a ~~other~~ causes formerly mentioned was such, that ~~not a single treatise has descended to us upon the diseases of the Roman armies, and probably~~ because no ~~proofs~~ peculiar diseases ~~prevailed~~ existed among ~~to~~ them. This is inferred, from not a single ~~dis~~ treatise upon camp diseases ~~is to be~~ being met with among all the numerous medical books and tracts which have descended to us from that nation.

that those officers and soldiers who wore flannel ~~shirts~~ next to their skins were rarely affected by Colds or fevers. Woolen Garments alone were worn by Cotton partakes of some of the qualities of the Clothing which is obtained from Animals.

Linnen obtained from flax is the ~~most~~ ~~less~~ disposed to produce disease of any the articles of Clothing that have been mentioned. The perspiration when ~~raised~~ confined by it ~~lay~~ for some time, acquires a morbid quality. Even rain when suffered to stagnate upon it has been known to change its qualities so as to render it unhealthy. Those soldiers who ~~wore~~ constantly ~~an~~ wore a loose over garment called a Rifle-Shirt made of linnen were the first victims of the Camp fever which

V Damp ~~bed~~ linnen next to the body, and damp sheets should be carefully avoided. I know that this advice has been opposed by Dr Franklin upon the authority of Father Paulo who includes ~~omis-sion~~ the opinion of persons taking cold from the above causes ~~wet sheets - bodily linnen~~ and from newly washed floors, ~~among~~ in the list of Vulgar errors. ~~The experience of Thousands~~ However ~~incorrect~~ harmless the practice may be, to Soldiers, Sailors and labourers, there are few ~~it the experience of~~ physicians in the United States who have not seen Rheumatisms, Colds, and pleurisies contracted by it.

destroyed several thousand of the ameri=
=can army in the year 1776. I mentioned
formerly that it sometimes produced
disease when ~~the~~ confined for a week or
two in a cloaths bag or basket from
the ~~sensible~~ perspiration it retained
when taken off the body. ~~to~~ This unhea=
=thy quality in linnen may be completely
obviated by changing it often, and exposing
it when ~~thus~~ foul, to the action of the
air. ~~This~~ ~~It~~

The form of cloathing should be
such as never to bind any part of the
body. The cloaths of the ancient Romans
were loose and flowing. many diseases
have arisen from tight ~~garts~~ ~~close~~ liga=
=tures about the neck ~~and~~ breast & waist,
~~bones~~ and from tight shoes and boots.

The four seasons all require different kind of Clothing. I shall begin by mentioning that which is proper in the winter, or in cold weather.

Wool, furs and silk should be preferred to protect the body from the cold of winter, and the quantity of them should be proportioned to the degree of cold, and the sensibility of particular parts. I am aware that I oppose here a popular opinion that the whole body might be made to acquire by time & habit the same insensibility to cold, that we observe to take place in the face. But I cannot admit this opinion. The nerves of the face possess a specific insensibility to cold which is seldom acquired by other parts of the body, and should we render them all equally

insensible with the face to the action of Cold in the course of a winter, they would lose this insensibility ~~in~~ the ensuing summer, and thus the work of hardening the body would be doing & undoing ~~from~~ every year, ~~this life~~ and never done. But for what purpose do we ~~wish~~ to create this general insensibility in the body to Cold? ~~We do not~~ Do we wish to educate our sons exclusively for the toils ~~of hunting or~~ War, ~~and no~~ ~~more~~ to watch for the ~~game~~ animals upon which they are to subsist, for two or three days behind a bank of snow? ~~would to~~ or do ~~to~~ we wish to form our women for the ~~drudgery~~ hardships & slavery of Indian wives? - ~~The design of this work is to~~ Admitting that we could succeed in ~~this~~ the experiment of inducing the

Indian Constitution upon ~~civilized~~ our citizens, what should we gain by it? The design of this work ~~Look at an Indian at~~ is to produce in its readers the greatest degree of health and longevity, but look at an Indian of fifty years of age, and you will see in his face the same marks of age which you will observe in a ~~an civilized~~ man who has passed seventy years in ~~a state~~ of civilized society. Read the accounts that are given ~~of the~~ by travellers of the disease of the Diseases of the Indians, — occasional ~~frequent~~ mortality of whole tribes from them, & of the ~~frequent~~ rare instances of ~~an~~ old age that occur among them, compared ~~with the~~ under equal circumstances with ~~those~~ the ~~great~~ number which occur among civilized nations.

I proceed therefore to point out the means of perpetuating to man the blessings of that state ~~in which he was created~~ ~~and~~ in which the first families upon the earth existed, and in which there is ~~more~~ not only more health & ~~longer~~ life, ~~that~~ more enjoyment than in savage ~~life~~ and ~~degraded condition~~ miserable ~~that~~ ~~departure from the which civilized~~ condition which has erroneously been supposed ~~to~~ have been the original ~~state~~ state ~~condition~~ of man.

The following rules should be observed in protecting the body from cold.

1 Flannel should be worn next to the skin. ~~The priests of the Roman soldiers wore made exclusively of the wool. The~~ I shall hereafter mention the only state of the body which requires an exception to this rule. Where flannel is forbidden, or disagreeable to the skin

~~the~~ advice which Dr Boerhaave gave to a gentleman to whom he recommended warm clothing, should be followed. It ~~consisted in a few words~~ was "Remember two Shirts, are warmer than two great coats." The climate in which Dr Boerhaave lived gave him the best opportunities of knowing the efficacy of this prescription.

2 The head should be protected in cold weather by a woolen night cap. ~~To this rule there is sometimes an exception. in~~ ~~who are subject to inflammatory affections of the brain are defendo~~ Persons It is no objection to this rule than some persons have been cured of head ach, and other diseases of the brain by exposing their heads during the night to the action of cold air. ~~Dangs~~ The

Object of this work is to suggest the means of preserving health & life, and not to cure diseases.

3 The feet should be protected with woolen stockings - cowhide soaled shoes, or large and loose galoshes worn over the shoes or boots. These will be more necessary when the weather is wet as well as cold. The following application to the shoes and boots ~~from~~ ~~by the scarcity of~~ first used by the fishermen in the reign of Queen Elizabeth of England has been found effectually to prevent their imbibing moisture. Rosin four parts Bees wax six parts mutton suet eight parts, and linseed oil sixteen parts melted together. Too much pains cannot be taken to keep the feet warm in cold & even cool weather, for by them

and ~~[illegible]~~ the warmth nearly all chronic diseases enter the human body.

4 Feather beds should be used ~~[illegible]~~ in cold weather and ~~they~~ ~~the~~ wider- manner de- and a covering of made of down should be preferred to a great number of bed clothes. ~~The weight~~ A ~~of a~~ down covering ~~that~~ that weighs but three pounds will confine more heat than three blankets. It has moreover the additional advantage of not oppressing the breast by which means the lungs in every act of inspiration fill the whole chest. ~~In~~ a blanket placed between the lower sheet and the bed ~~[illegible]~~ adds considerably to its warmth. In extreme cold weather, it will be found more comfortable to sleep between blankets than sheets. The warming pan ~~should be~~ is seldom necessary to persons in good health. As sleep

v once engaged in extensive Country practice informed me that he had found the latter, taken just before he mounted his horse to ride in the Cold to protect him from its painful effects much more than ardent Spirits.

is sometimes prevented in very cold weather by cold feet, they should be ~~we~~ kept warm during the night by being placed in contact with a jug, or bottles filled with warm wa= =ter. Under the bed clothes they will re= =tain their heat until morning. —

In going abroad in cold weather some further means of ~~protecting~~ defending the body from being injured by it have been found ne= =cessary. These are

, eating a hearty meal or drinking a pint of strong Coffee. A physician who was a washing the feet in tepid or cool water, and afterwards adding, to the coverings formerly mentioned, a large woolen Sacks or Stockings. ~~they~~ In riding in a carriage, hay or straw may be substituted for them. In riding upon horseback, the feet will retain their heat a great while by resting them upon Stirrups covered

with tow, or a piece of coarse woolen cloath.

3 The hands should be covered with gloves or mittens made of woolen or furr. The latter by admitting the contact and motions of the fingers, retain the most heat.

4 the ears are more apt to be affected by cold than any other part of the head. they should be protected by means of a hand kerchief or a furr cap.

5 the face should be defended by a mask.

6 the trunk of the body and the limbs should be defended by means of thick woolen cloaths. Mr. Acerbi ~~mentions~~ in speaking of the means employed in Sweden to guard the body from cold mentions an instance of a gentleman who left ten articles of dress ~~at a~~ in the entry ~~of~~ a house to ~~which~~ in Stockholm to which he went to pass

V 8 Dr Boerhaave mentions a liquor called Brunswick which is ~~drank~~ used by the Drovers who bring cattle from the north of Europe to Holland in the middle of winter, in order to fortify themselves against the Cold. They declared to the Doctor ‡

~~Dta~~ Chewing tobacco by persons
I who have not been in the habit of using it. I have heard of a life being saved by this remedy. It not only counteracted the Cold, but induced a general heat and perspiration over the whole body.

11 11. Wetting the body with Salt Water has been found to lessen the ~~Cotoncs of the~~ painful ~~Air~~ the effects of cold Air, and cold fresh Water upon the body.

12 Pouring ardent spirits into the shoes or boots produces the warmth of the feet. ⊙
‡ that they found no liquor equal to it in preserving the natural heat of their bodies. It is nothing but strong Beer ~~in its unfermented state~~ reduced by heat to the consistence of a thin syrup. —

9. ~~A physicians who died~~ A physician who was once engaged in extensive Country
⊙ 13 The Indians Obviate the first

an evening in ~~an a~~ Winter. Six of them were
two pairs of Gloves - two pairs of boots, and
two great Coats. — Singing upon the effects of cold upon the body.
7 Conversation, and Singing upon the effects of cold
10 It is a good practice in travelling to
avoid going near to fires in cases the
cold be very intense. ~~when the hands or body be~~ ~~hands or body have suffered~~
~~feet have suffered from it,~~ ~~from the cold.~~ ~~If they frozen,~~ they
should be washed in cold water before they
are exposed to the fire. —

11
13 Persons are sometimes exposed in tra=
=velling by land and water to intense degrees
of Cold in which they are incapable of
using any of the means that have been mentioned
exercise to lessen ~~cold~~ it. A brother
of the late Governor VanDyke informed me
~~of the late friend of mine from Virginia~~
that he was obliged to drop any of the
rivers of the Chesapeake on a cold evening about
forty years ago. ~~one~~ a little beyond the
middle of the river, the ice formed so
rapidly, that the boat could not be
moved. The ferryman gave up all

practice informed me that he had found a pint of strong Coffee taken first before he mounted his horse to ride in the cold, to protect him from its painful effects much more than ardent Spirits.

painful sensations of cold upon their feet by plunging them in cold water. They sometimes break the ice for this purpose. The cold water, aided by the ~~excites reac=tion~~ subsequent exercise of walking ~~reacti~~ produces reaction in the feet & thus restores their warmth.

14 The least tendency or disposition to sleep should be resisted by running, or jumping when it is practicable. This sleep is the beginning of death.

expectations of ~~was~~ life. Mr. Van Dyke ~~[illegible]~~ bid him not despair, and directed him to take off his shoes, while he at the same time ~~[illegible]~~ took off his boots. They then sat down in the bottom of the boat and placed ~~with~~ their feet ~~placed~~ against each other's breasts. ~~and their heads and bodies so completely cov~~ Afterwards they covered their heads and bodies ~~so~~ completely with Mr. Van Dyke's great Coat ~~that~~ by which means they confined ~~all~~ so much of their perspiration and breath as to become ~~so~~ comfortably warm. They then fell asleep and remained in that state ~~for several hours~~ ~~that they slept soundly for~~ several hours. ~~to~~ In the morning the river was ~~so~~ frozen so hard, that the ferryman led Mr. Van Dyke's horse upon it to the opposite shore. Several persons were saved from perishing with

cold by the same practice ~~in the winter of 1806~~ who were driven from ~~the harbor~~ New York into the open sea in the winter of 1806.

In the Spring, the clothing should be gradually lessened with great care. no part of the interior covering of the body should be laid aside, until the weather becomes uniformly warm. ~~many fatal~~ Pleurisies have often been brought on by taking off a flannel shirt on a casual hot day in the month of April. The cloak, great coat ~~or~~ surtout, or spencer may be dispensed with at midday but should be put on in the mornings and evenings. The form of the Chinese ~~clothing~~ dress favours the easy diminution or increase of the clothing in cold weather. ~~the outer~~ They wear three coats ~~this strong~~ much more than ours. ~~the outer~~ The outer ~~coat~~ one is shorter & lighter

than ~~this~~ the second, and the second shorter and lighter than third by which means they change their dress to as suit the changes in the weather without so great deminution of their clothing as arises from laying aside a great coat, or without the trouble that attends so taking off, and putting on the ~~internal~~ interior and small coverings of the body.

~~In wet weather whether it occur in the town~~ In summer it is common to wear clothes made wholly of silk and cotton, ~~silk~~ linen. But experience has taught that their ~~clothes~~ woolens are to be preferred to them, especially for outer garments. Even the sweats they induce tend to prevent the diseases of summer. By ~~to~~ persons to whom flannel is disagreeable great care should be worn next to the skin, cotton may be used in its stead.

V It ~~is~~ is practice Ulloa tells us among the Spaniards in the Island of Cuba when they are partially wetted by a shower of rain, to plunge themselves into a stream of water so as to wet their bodies all over to the skin. The system is thus obliged to react, and the bad effects of the partially wetting prevented. Where this is not done wet clothes should be never be ~~per~~ suffered to dry upon the body. The sooner they are changed for dry clothing, the better. Where this cannot be done, the reaction of the system should be excited by ~~strong~~ exercise, warm tea, or coffee - fermented liquors, ~~or~~ or by a small quantity of ardent spirits. ~~This is one of the~~ ~~for~~ General Wolfe ~~a~~ who was a philosopher as ~~as~~ a ~~soldier~~ warrior ~~never~~ allowed his soldiers to taste ardent spirits except ~~upon the occasion~~ when they were exposed to rain. ~~in which case he found them safe and useful~~. It is one of the few occasions that occur in ~~the~~ which they are safe and useful.

taken to ~~go and~~ increase ~~or change~~ the
clothing in the mornings and evenings
after the 20th of August in the Middle States,
~~from~~ and at all other times when the coolness of the morning
& night air greatly exceeds its temperature in
the middle of the day. It will be im-
-prudent in most parts of the United States
to go abroad for more a few days in the Summer months without
a change of woolen cloaths, or a great
coat. The Spanish proverb relative to
this rule is a wise one. "If it ~~rains~~ the Sun
~~you~~ shines, take your great coat with
you, but if it rain, do as you please".

✓ ~~The body suffers least in~~ exposing the body to the rays of the Sun
In ~~going abroad in wet weather~~
the head should be protected by means of
umbrella & a high crowned ~~hat~~ and light
hats. ~~They~~ The latter should be made

v whole bodies ~~by means of~~ with large and loose great Coats or Cloaks when they expose themselves to the rays of the Sun. ~~by which means they suffer only from an accumulation of~~ They act in the same way in keeping the heat of the Sun as the Egyptian turbans. –

of straw or pasteboard. They are coolest when white, but a dark color is best calculated to conceal the dust which is apt to ~~on~~ ~~attach~~ attach itself to them in summer, and it does not add much to their heat.

The Egyptians ~~from~~ protect their heads from the intense heat of their sun by a thick covering called a turban. It excludes by its numerous folds the external heat which is ~~often at~~ often at 120 & seldom less than 108 of Farenheits thermometer, and exposes the head to its own heat only which is many degrees lower than that of the external air. The Spaniards & Portuguese ~~protect~~ cover their

It has been ~~supposed~~ said that the head ~~is in~~ by being uncovered in the hot sun

acquires ~~a~~ an insensibility to heat which ~~renders it less~~ defends it from many of the diseases of the brain. It is certain the Skulls becomes thicker & more dense by this practice. This was long ago ascertained in walking over a field of battle that was covered with the bones of a number of Persians and Egyptian soldiers. The Skulls of the latter ~~wearers~~ who never covered their heads, were known by their greater thickness than the former. ~~even who~~ ~~But the design of these pages~~ who stoop at this labor in the sun as servants gardiners in weeding, & some other classes of ~~let~~ people find no inconvenience from the want of a covering upon their heads. But the design of this work is not to

qualify men to be Soldiers nor to ~~labouring~~ troops exclusively ~~for hard labour~~ at labor in the hot Sun. It is intended to meet the Citizens of the United States as they are, and as they live in a climate exposed to ~~as being and in~~ ~~a, but few of~~ rain as well as to heat in Summer ~~and~~ a ~~a but few of them are Soldiers and still~~ ~~fewer labour the the~~ ~~troops in the open Air at occupations~~ ~~which require stooping~~ they should ~~protect~~ cover their heads whenever they expose themselves to the rays of the Sun in hot weather.

Standing still in the Sun should be carefully avoided.

In the use of drinks to mitigate the heat of the body, the reader will please to advert to the rules that were delivered in p:

The body when much heated, or

V This caution I know will be objected to by persons who are in the practice of sleeping with their windows open in cools and even cold weather. But let them remember that there is less danger in doing so, at those times than in the summer months. The greater the heat, the more the system suffers by a small diminution of it. This is well known & from sad experience in Egypt, and in the East and West Indies, where more diseases are induced by the coolness of the night air, than in all the northern Countries of Europe, and in the United States. —

covered with sweat should never be exposed in a sitting posture, or at rest in any way to a current of air.

A mattrass should be preferred to a feather bed in summer. The larger it is made, the more easily it admits of the body changing its ~~position~~ posture from a warm to a cool part of it.

It will be unsafe ~~in the~~ in the variable weather of the middle states to sleep with the windows open in the ~~warmer~~ summer months. A sudden change in the temperature of the ~~night~~ air in the night has often induced Colics, Coleras, fevers, and death in Philadelphia. It is most ~~unsafe~~ dangerous after the air becomes charged with those exhalations which produce autumnal diseases. —

The Clothing should be gradually in-
-creased in the first Autumnal Month,
and it should be nearly the same as
in winter, in October and November
in the middle and Eastern States. Cold
is the greatest physical enemy to man. It
destroys millions by its sensible
qualities alone, but its aids fevers
from putrid exhalations in the business
of destruction by burning in the
Autumn, their exciting Cause. Of the
many thousand ~~Citizens~~ inhabitants of
Philadelphia who have perished with the
yellow fever since the year 1793, ~~the~~
~~wanted~~ a ~~light~~ ~~in~~ thin waistcoat, or
side in the early morning or evening

air, and the want of ~~a blanket a~~ sufficient bed clothes at ~~bedtime in the~~ night, have awakened the sleeping disease in most of them.

Fires should be made in the common sitting room every morning & evening in September, and during the whole day as soon as the glass descends to 62° of Farenheit. ~~In rainy weather~~ cool. They not only warm the body, but they carry up the Chimney all the exhalations which insinuate themselves into the house in the Autumnal months.

Fires should likewise be made in summer whenever the weather becomes unseasonably cool, and especially if it be accompanied with rain.

Let it not be said that ~~life~~ health is not worth having upon the terms of

vigilance and care that have been recom-
-mended. ~~It is purchased by~~ Considering
its immense Value it is purchased by
them at a small price
~~A~~ difference in age, occupation and sex requires some
some Variation in ~~the~~ Clothing ~~should~~
~~be made a~~ as well as a difference in the
Seasons.

Children ~~perhaps stronger existing process~~ suffer more from heat &
~~to Cold than~~ life from Cold than adults.
~~They should therefore be clad in thin~~
~~Their~~ Clothing should be light in Sum-
-mer, and moderately warm in Winter.
Thin flannel next to their Skins is
calculated to defend them from the
Stomach and bowel Disease to which
they are so generally subject in the
United States.

V The ~~debility which appears in~~ extenuated state of the thread of life in old people renders it very liable to be broken by degrees of heat and cold which are seldom hurtful in middle life. The former should be obviated by rest, and artificial currents of air, and the latter by additional clothing more especially upon thier heads and feet. As ~~the~~ death from cold makes its first attack upon thier feet in the night, they should be wrapped up in flannel, or bottles filled with ~~hot~~ warm water should be applied to them when they go to bed.

To

The young and middle aged will profit by a strict attention to the ~~[illegible]~~ directions for regulating their Cloathing that have been delivered, by the state and changes of the weather. Let the former remember ~~that~~ "if they wish to be young when they are old, (to use the words of a Spanish proverb) let them be old [that is wise] when they are young". Health is in one respect like money, the more frugally it is saved in youth, the greater capital it will produce in Old Age. —

~~The ~~[illegible]~~ decay of heat in old people, and their inability to derive it by labor or exercise renders ~~[illegible]~~ more ~~of~~ Cloathing necessary for them than for persons in early ~~and~~ middle life.

Divert ~~conceal~~ the eye of Spectators from the ~~effect~~ marks of time upon the body and particularly upon the face, ~~the~~ of old people their clothing should not only be warmer, but more elegant and splendid than in early and middle life.

studious men become less sensible to heat, and more sensible to Cold than other people. They often suffer from the ~~the~~ ~~effects~~ decay of their fires in the evening, and by going to bed ~~in~~ chilly, or with cold feet. They should avoid both by warm clothing, and comfortable fires in their places of study, ~~a bottle filled with hot warm water should be applied to~~ and by warming their feet, ~~if they if~~ when necessary just before they go to bed. —

Persons who ~~[illegible]~~ follow sedentary mechanical employments require ~~artificial~~ light clothing ~~warder of cooling the~~ air in summer, and ~~stove rooms in winter they~~ ~~and~~ warm clothing in winter.

Mechanics who work in the

open, also labourers require light Cloathing in Summer. Where men work under cover, they feel the ~~least~~ heat least when they take off their shirts, and expose their naked bodies to the air. The rapid evaporation of their sweat ~~is more rapid~~ by this means counteracts the heat of the air. Where ~~the whole body and~~ all the limbs, and the whole body are ~~in the~~ exercised in winter, less Cloathing is necessary than where that state of the system does not take place. ~~After labour~~ During the suspension of labor, the Cloathing should be increased, or refuge should be taken in a warm room. —

~~their heads and their feet should be defended with great care from the cold.~~

Women in early and middle life ~~a power of~~ bear the extremes of heat & cold with more patience than men, but they do not suffer less from them. It is to be lamented that in the climate of the United States, they are governed by the fashions in dress ~~of~~ which prevail in the more moderate climates of Paris & London. hence ~~their heavy cushions upon their heads in summer and~~ their ~~no~~ bare arms and their body clothing in winter. This ~~rebellious~~ want of conformity to nature, reason, delicacy and the ~~climate~~ temperature extremes of heat and cold in the United States, has greatly increased the number of ~~diseases~~ diseases ~~are~~ particularly of

the pulmonary Consumption among all ranks of our Women. The pro=portion of female patients affected with that disease in the practice of the Author during the year 1808 was to that of the male as ~~to that of female~~ . From the ~~preceden=~~ late additions that have been made to ~~the business~~ ~~of females to the lists~~ ~~[illegible] occupied~~ ~~of business of physicians to~~ the number of female patients from one of the causes ~~that~~ have been mentioned, it has been said very properly that "the nakedness of the women is the clothing of the physicians of the United States."

~~whether indefinite of fashion~~

From a belief that my fair Coun=trymen will sooner or later recover from this present delirium respecting their Dress, I shall advise them to

wear flannel Drawers as well as waiscoats next to their skin in cold weather, and to protect their feet with leather, ~~shoes~~ over their worsted, or Silk Shoes.

Of preventing diseases from bad Air.

The Air induces diseases by its sensible qualities such as heat, cold, moisture and dryness, density and rarity, ~~and~~ It by its insensible qualities, that is by certain foreign matters ~~blended~~ being diffused or mixed with it that do not belong to it in its natural state.

I have already pointed out the means of defending the body from the morbid effects of all the sensible qualities the Air except its density and rarity, and these are so few in number, and so feeble in their operation when they act singly, that it will be unnecessary to mention them.

~~If the foreign matters which mix with, diffuse themselves in the Air are numerous; I shall briefly enumerate them.~~ Simple

as the air appears to be it is composed when in its healthy state of ~~three parts which the Chemists call azote, oxygen gas and carbonic acid gas, of the first~~ 72 ~~of the~~ parts of what the Chemists call Azote, 27 parts of Oxygen gas, and one of Carbonic acid gas. It is proble other matters enter into its composition, but Chemical tests have as yet discovered ~~not~~ no more than those that have been mentioned. Many matters are mixed with the ~~smaller~~ air or are diffused through it which are foreign to its nature, and which are a source of ~~many~~ diseases. These are exhalations from putrefying vegetable & animal substances. from living animal

bodies in a confined, or unhealthy state, - from respired air, - from the Air discharged from Calcarious substances and fermenting liquors called Carbonic Acid gas - Inflammable Air called Hydrogen Gas, - exhalations from minerals and Springs - the effluvia of certain manufactures, and the odors of certain Spices and flowers.

The exhalations or miasmata (as they are generally called) arising from putrefying Vegetable and animal substances constitute ~~the prom~~ a fruitful source of ~~unhealth~~ diseases from ~~the prop in~~ the Air. In order to the production of these exhalations, heat moisture and fermentation must combine. of course they exist only in

hot climates, and seasons. In the United States they produce their ~~morbid effects~~ peculiar diseases only in the Summer and Autumnal months. These ~~yellow fever~~ are yellow fever, bilious remittents, Intermittents, inward fevers, Colic, Colera morbus, Dysentery, Diarrhea ~~Opthalmia~~, Inflammation of the eyes, and head ach.

The means of defending the human body from these diseases so frequent and often so fatal ~~into~~ the United States divide them=selves into two heads. I shall

The Vegetable matters which ~~have been found~~ ~~when~~ in a state of putrefaction have been forced to produce ~~these~~ this formidable Class of diseases, are exhalations from marshes, Cabbage, potatoes, pepper, Indian meal, Onions, mint, anised and carawayseeds, Coffee, Chocolate shells, Cotton, hemp, flax, straw, the Canvas of old ~~tents~~ tents, old books and paper money,

the timber of an old house, green wood confined in a close cellar during the summer months, the green timber of a new Ship the stagnating Air of the hold of a Ship, Bilge water, water that has been confined in hog-head, at sea. stagnating rain water, the stagnating Air of close Cellars, the matters which usually stagnate in the Gutters, Common ~~sewers~~, Sewers, docks and Alleys of Cities & in sinks of Kitchens, Air emitted by agitating foul and ~~the~~ stagnating water, a duck pond, a hogstye, Weeds cut down & exposed to heat and moisture near a house.

The Animal ~~which~~ matters which ~~when~~ in a state of putrefaction have been observed to produce the Summer and autumnal Diseases which have been enumerated are human bodies that

have been left unburied upon a field of battle, salted beef & pork, ~~two~~ hides confined in stores, and in the holds of ships, - a whale thrown upon the sea shore, large beds of Oysters, - the entrails of fish, and privies.

~~The reason~~ In suggesting the means of ~~defend~~ preventing the diseases from the exhalations or miasmata from all the sources which have been enumerated I shall first mention the means of guarding against ~~its most malignant~~ the bilious, and malignant Yellow fever ~~which is the worst malignant form~~ of our Coremboy, & then take notice of such as are proper in all the inferior and milder grades ~~of the Longmen and Autumnal diseases~~ ~~wh~~ of our Summer and Autumnal ~~d~~ diseases that have been mentioned.

+ The directions ~~for preserving~~ which follow are an abridged extract from the 4th volume of the Author's medi-cal inquiries and observations. They have been read chiefly by medical gentlemen. They are now put into a a dress which will render them intelligible to all classes of readers. Some of the directions have been introduced in the former part of this work, but the Author hopes they will be more im-pressive from being repeated in a connec-tion with facts that are related to them.

These naturally divide themselves again,
– here introduce from p: 178 to 220 of the 4th
volume of medical inquiries & observations.

Health and life are sometimes endangered by miasmata which are discharged from living bodies when confined in close rooms or apartments, ~~as~~ and where there is a want of cleanliness, and of a sufficient quantity of wholesome provisions. ~~The fever which has obtained~~ From its being so often generated ~~under the~~ ~~above circumstances~~ in jails, hospitals, and ships, it has obtained the name of the jail, hospital & ship fever. It differs from all the forms of bilious fever in appearing only ~~too~~ under the circumstances of confinement, filth, and scanty or bad provisions that have been mentioned, ~~so~~ in ~~being~~ never prevailing ~~beyond~~ generally ~~through a~~ beyond the places in

In attacking persons of debilitated habits chiefly, in not being attended with remissions or intermissions, nor with bilious discharges & merely with inflammatory symptoms, in being of ~~a~~ more protracted ~~and~~ or of longer duration,

which it is generated, in being contagious, when persons predisposed to it are ~~with~~ exposed within ten feet ~~of the sources~~ of ~~to~~ its miasmata, and in prevailing ~~on~~ chiefly in cool and cold weather. The means of preventing it ~~are~~ consist in avoiding all its causes. ~~by cleanliness of large and well aired rooms, by bodily cleanliness and by~~ particularly the more especially ~~by the~~ foul linen and other articles of bodily clothing, which by confining the perspiration for a long time, renders it putrid, & acrid, and thus disposes it to produce fever. The clothing ~~thus worn by thus~~ when infected retains its power of communicating the disease for several months.

It should therefore be carefully washed, or destroyed. Happily for the people of the United States, the ample, or comfortable accommodations of the poor, their competency of clothing and ~~the~~ wholsome food render fevers from human miasmata very uncommon in our country.

Respired air called by the Chemists Azote, nitrogen, Azote and sometimes phlogisticated Air when confined, produces diseases & death. Dr. Franklin informed me that ~~the celebrated~~ Dr Hales the ingenious Author of the treatise upon Vegetable Staticks, had informed him that three out of four persons had perished with malignant fevers who seated themselves near a hole in the Ceiling of the house of

Commons in order to take notes of a private debate. The sickness ~~of~~ which children often contract in crowded schools is derived chiefly from the air of the school room being overcharged with respired air. It is rendered more unhealthy when the burnt air of lamps and candles ~~(which is of the same nature)~~ is added to it. Disease and death from both these airs is to be prevented by avoiding crowded rooms, or ~~by~~ ~~frequently~~ ~~(such only as~~ by having them are well ventilated. Even this air being lighter than common air, the ~~the~~ passage for its escape out of a room should be in the upper part of it.

Air which has been consumed by the burning of wood and coal, ~~evaporation~~ is fatal to ~~human~~ animal life.

V The air impregnated with the fumes of lead, ~~is~~ and which is so injurious to all three artificers ~~that~~ work in it has been rendered inoffensive by a diet of fat meat. Oil of any kind taken plentifully ~~by way of~~ as aliment is calculated to produce the same salutary effects.

~~It throw their~~ sitting or sleeping in a room in which this air is confined should be carefully avoided. Apoplexies, and death have often been induced by it.

The air from burning charcoal, calcareous earths, alkalis, & fermenting bodies, & which is known by the names of carbonic acid gas - fixed air, & mephitic air often produces giddiness, sickness, headache apoplexy and death. It is sometimes found in a simple state by nature in wells, privies, caves, and upon the surface of the earth. It may be known by suddenly extinguishing a candle. This ~~same~~ test of its presence ~~is sufficient to~~ should deter from exposing ourselves to it.

The other sources of impure air that have been mentioned are so

& it will not be necessary for us to live
or to travel with a Eudiometer in our
hands to determine the impurities of
the Air we breathe; or the Contrary

uncommon in the United States, and so rarely hurtful, that it will be unnecessary to suggest any Cautions to prevent their inducing either disease or death. —

The ~~facts~~ Rules that have been delivered upon the Subjects of Bloathing and Air if attended to will save much trouble in detailing the situations in which ~~life~~ health and life may be preserved to the most advantage. With the ~~Advantages~~ aids we are capable of deriving from experi=ence and reason, ~~no spot in the United States should be considered as unhealthy.~~ the city and the Coun=try, the ~~hill~~ mountains and the Valleys ~~and~~ the Shores of ~~the~~ our rivers, ~~and the~~ from ~~St Cro~~ St Croix, and the Plains remote from them, ~~the Lands of Georgia and the~~ ~~from~~ ~~soil~~ of Maine in the United States

V deficient state of knowledge and industry in individuals and public bodies with respect to the means of obviating the diseases which arise from the insensible qualities of the air,

may all be inhabited, ~~and~~ by persons in good health, and ~~disease~~ the diseases incident to each of these be avoided. To this ~~were the~~ ~~not the~~ ~~case, the greatest part of our Globe was made in vain~~. I ~~except~~ except from this general remark, persons predisposed by previous debility to ~~particular~~ disease. The Situations with respect to Air, as well as other things which ~~are proper for~~ such persons ~~enjoyment health~~ shall be taken notice of hereafter.

In the present ~~state~~ ignorance of ~~our Globe~~ ~~be involuntarily~~ ~~respect to the~~ ~~to~~ benefit will be derived from ~~changing~~ changing ~~the~~ ~~the~~ it ~~this~~ by the following Classes of people. Children born in Cities should pass their Summers for the first seven years of their lives when practicable in the Country.

men of ~~business~~ leisure who reside in cities will ~~find~~ preserve their health, and prolong their lives ~~either~~ by spending their summers in the Country. men of business who ~~lo~~ reside in cities will ~~to have~~ derive nearly the same advantages from spending their mornings and nights in the Country.

Old people who have passed their lives in the Country will avoid many of the much of the Diseases and distress peculiar to their time of life, by retiring to a city in which they will have company upon easy terms, - warm houses, convenient aids of a place of worship, and that Variety of cordial aliment (~~so agreeable to and~~ necessary to Old people) which is to be met with in much greater abundance in a city market than

upon a farm.

A ~~To preserve~~ old people ~~in any circumstances~~ affording a change from a cold, to a warm climate ~~and family warm~~, has often added years of ~~life~~ health and life to old people. The wealthy ~~Romans~~ citizens of Rome ~~in the decline of life~~ ~~to~~ removed to Naples, ~~and the~~ in the decline of life, and the wealthy Portuguese ~~to~~ frequently migrate to the Brazils in order by getting nearer to the sun to ~~partake of his rays~~ prostrate beneath his stimulating ~~and vital~~ heat, the duration of their lives. — ~~Some~~ Mechanics and manufacturers who work in companies, and in small rooms should often change their air. see pathol: on therap:

# of Exercise

The human body is so contrived that the actions of its muscles is necessary to ~~promote the action of all its other parts~~ keep up the healthy actions of all its other parts. This is ~~to~~ effected by means of labor and exercise. — The former ~~was~~ was not only the means of man's existence, but of his innocence and happiness. It was the ~~[illegible]~~ of Heaven in paradise. ~~The~~ It was it is true ~~of~~ in its degrees & in its ~~to a~~ objects. ~~degrees~~ were ~~of~~ limited ~~nature~~, and ca. ~~and there of~~ to as to be carried on with original pleasure. ~~a pleasant nature~~. ~~The only~~ ~~the~~ nor was he deprived of it ~~was not abstracted from it~~ After his fall. The objects were extended only from the garden to the wilderness & the field, and the degrees of it ~~were made~~ which

were made necessary to his subsistence ~~to muscles greater as to exter~~ were so much encreased as to induce a sweat ~~not so great as to be accompanied with~~ upon ~~the brow of~~ his brow ~~with~~ ~~those exertions that covers the body with~~ sweat. But ~~even if~~ in this change of the Objects and degrees of labor ~~There~~ the Creator appears to be still kind ~~discovers its kindness~~ to man. The changes which his hand introduced into his mind ~~thoughts~~ as well as his body rendered a larger portion of those means which were intended to prevent it ~~will~~ necessary to ~~radica~~ cure it, and even the mark of this additional labor ~~sweat~~ upon his brow, became the means of rendering it inoffensive to his constitution. The truth of these remarks is manifest from the good health or happiness &

longevity which have accompanied labor in all ages & countries. Where it has been otherwise, it has been because tyranny has rendered it excessive in its degree, or deprived the subjects of it of the ~~q~~ quantity of aliment, and clothing which ~~was~~ were necessary to render it ~~tollerable~~, or where folly and vice have connected it with the use of ardent Spirits.
~~intemperance &c~~

I have said labor is conducive to ~~the~~ the preservation of health and the cure of vice, ~~both~~ when submitted to in the degree intended by heaven; ~~it is always attended after a while with pleasure~~ ~~This~~ ~~the original connection~~ but the same law of our

natures which converts ~~pain~~ the disagreeable & painful impressions ~~from certain impressions~~ upon our senses by repetition into such as are agreeable & pleasurable converts by habit the pain of labor ~~by habit~~ into pleasure. Of this thousand can bear witness who ~~have~~ have resorted ~~to~~ ~~with the morning~~ with the dawn of day to the spade, ~~and~~ the plough, ~~to~~ the hammer and the anvil with alacrity & left them with reluctance with the sitting sun. Its pleasurable nature of labor is winced still further by the languor & even distress which attend its intervals when protracted beyond the times of which ~~aging~~ nature requires to ~~wind up~~ renew the ~~restoring~~ strength of the body. ~~The tendency~~

this ~~history~~ ~~friendly~~ obvious & acknowledged operation of labor ~~of our ladies has often concealed the~~ ~~Author wh~~ ~~in beholding~~ ~~in reading it read which~~ ~~has is both obv~~ upon the human body ~~has led me to suppose~~ leads to a belief that it is attended with the same pleasure effects ~~upon~~ in other animals, and this is calculated to reconcile us to our moderate and just exactions of it ~~from labor~~ from them, for our benefit or our pleasure.

~~The~~ However necessary, useful, and even pleasant labor may be, ~~it is plain that~~ the business and duties of civilized so=ciety plainly indicate that it cannot be universal ~~shown in~~ after the examples of its original institution. ~~Proves a force of its importance~~ Taught by suffering from ~~the~~

neglecting it, man has resorted to Exercise as a substitute for it. ~~It has many~~ God made labor ~~of its advantages, but after all~~ it is so far ~~inferior to it~~ labor ~~that it carries with it marks of its origin~~ ~~its~~ ~~but we are~~ ~~its~~ with all its advantages, it is much inferior to labor ~~in its~~. Thus we see God made labor but man made exercise. ~~However~~ Useful as the latter ~~an it~~ may be, it carries marks of its inferior origin ~~inferiority to the~~ ~~[illegible]~~ in its being less constant or more partial and often more deficient or excessive in its degree than that which is the gift and command of Heaven.

Bodily Exercise ~~the following~~ is necessary to the following classes of people. ~~Lazy~~ ~~Lazy~~

1 Persons ~~wholly or in~~ in affluent and independent circumstances who are not engaged in business.

2 Studious men who ~~labor with them~~ lead sedentary ~~lif~~ lives.

3 Artificers who labour with only a part of their bodies, and

4 Invalids.

Bodily exercise has been divided into active passive and into that which partakes of each of them, or that is of a mixed nature.

~~It is further divided~~

To the active exercises belong walking, running, jumping, swimming, dancing, foot ball, fives, cricket, quoits, golf, shuttle cock, reading aloud, singing ~~and some others~~

To the passive exercises belong riding in a carriage ~~or swinging~~, rocking in a cradle swinging, riding in a carriage ~~or~~ sailing ~~or~~ frictions.

To the mixed exercises belong, riding on horseback - ~~rowing~~, and some others which are taken from labor such as rowing, digging in a garden, cutting & sawing wood.

The following rules should be observed in the use of ~~all~~ exercise.

1 The whole body should, when practicable be exercised. In this way every part ~~of the~~

~~to~~ of it will be alike strengthened, and thus an equilibrium of health be preserved. Exercise moreover can be protracted longer in this manner, and of course more benefit be derived from it than when it is partial in its operation. Of this we see a striking proof in the lip fatigue that is felt in climbing a ladder in which the hands are employed as well as the feet, than in walking up a pair of stairs in which the feet only are exercised. In walking, the Arms are necessarily, among civilized men, ~~among civilized nations~~, ~~but this not the case~~ in consequence of which they share in a small degree with the lower limbs in the ~~benefit~~ advantages of that exercise, but among the Indians who employ their ~~hands~~ arms in supporting their blankets around their bodies, this is not

the case, hence they become fatigued from ~~some~~ walking sooner than this civilized neighbours. To obviate this fatigue ~~they to~~ in their long marches they take up a stick of wood or a rail, and carry it in their arms or upon their shoulders for an hour or two, ~~by which means they~~ and then throw it away. ~~By~~ By this practice they ~~invigorate~~ equalize the ~~their to an equilibrium of~~ strength ~~to~~ of their whole, ~~and to~~ bodies, and remove the sense of weariness from their lower limbs.

2 Exercise should never be used until ~~it~~ it induces fatigue. ~~Persons should desist from it as soon as are directed to do from eating, with a desire for more.~~ Whenever this is felt, the system becomes predisposed to disease. ~~from and the~~ Persons should

desist from exercise, as we ~~are directed~~ ~~to~~ should from an eating - with an ~~disse for~~ inclination for more. —

3 It is ~~so~~ unsafe when used before breakfast in the morning, and after night in the open air more especially during the prevalence of the diseases of the summer & autumnal months.

4 It should be preferred in the open air in ~~of~~ dry weather, but never ~~Exercise no~~ in ~~extremely warm~~ ~~the hot part~~ ~~the effects~~ Exercise in a ~~warm~~ close ~~ne~~ room ~~altes this gives~~ not only en-creases the perspiration but alters its qualities, so as to ~~render~~ dispose it ~~avoid~~ to produce disease. A proof of this was men-tioned in ~~p~~ the last page of the Chapter upon air. —

5 ~~when~~ Sweat should be avoided in the use of exercise, but where it has been induced, the linnen should be changed, or great care should be taken not to rest suddenly, nor in a cool place nor in a current of air.

6 Exercise should never be used in less than three or four hours after a full meal.

7 In all the different kinds of exercise the dress and ligatures upon the body & limbs should be loose, otherwise from the swelling of the muscles, they will give pain, and thus ~~and~~ defeat the benefits of exercise.

8 ~~It should be varied to the~~ travelling ~~the lips the~~ little should ~~situation~~ in ~~of~~

~~life, age, sex, occupation and season of the year~~ he eats ~~during the day,~~ ~~and~~ until the journey of the day is over, ~~when~~ and if there is a disposition to fatigue from riding, it will be useful to walk the floor for half an hour before rest be taken either in a sitting or lying posture.

In travelling upon foot, rest should always be taken in a recumbent posture. The muscles are thus equally relaxed, and ~~the~~ remains of this excitement equalized. ~~The~~ I was first struck with the ~~benefit~~ sudden relief from fatigue obtained by this practice ~~in~~ by the soldiers of the American Army during the revolutionary war. After lying down for ~~half an hour~~ ~~a quarter~~ twenty minutes or half an hour upon the grass, they rose in an alert manner, and ran to their Quarters as if they had just risen from their beds.

Exercise should be suited to situation in life, age, occupation - season of the year, and predisposition to particular diseases. —

Walking is the best mode of exercise for preserving health, and should be preferred by all persons who are ~~a~~ in easy circumstances. It exercises all the muscles of the body, ~~it produces a con=stant of air are~~ and particularly ~~but chiefly~~ the lower limbs in which ~~the~~ the effects of ~~excess of~~ ~~eating and~~ drinking in ~~are~~ are most apt to ~~appear~~ show themselves. It ~~gives affords a~~ promotes perspi=ration, and carries ~~it~~ the body ~~contract be~~ ~~im~~=mediately beyond its influence by a con=stant ~~and fresh~~ supply of fresh air. Next to walking, riding ~~on~~ horseback

should be used by persons who are not not obliged to work for their ~~subsistence~~ substitute. — It strengthens the breast, and restores the stomach and bowels by gently agitating them, from the effects of ~~[illegible]~~ intemperance in eating. ~~It~~ To these exercises ~~may~~ should be added swimming & the manly games of football, fives, Cricket, Quoits, & Golf, Rocking in a Cradle ~~in~~ and riding in ~~[illegible]~~ ~~Riding in a [illegible]~~ a Carriage, will be useful to Children before they are able to walk. I know ~~that~~ ~~an~~ ~~Objec-~~ it has been objected ~~[illegible]~~ to the former mode of exercise, ~~and~~ that it injures the brains of Children, and thereby im- pairs their intellects. ~~It might be~~ two answers may be given to this ~~sufficient to [illegible] in answer to this~~

Objection ~~to say there are no proofs of the fact, on~~ the ~~contrary, the~~ wisest men that ever lived, have passed through a cradle to their eminent stations in the world, and 2: by ~~exercise similar to~~ rocking ~~is that the kind of exercise~~ kind of exercise which approaches nearest to that to which ~~a infant expects life, it is~~ an infant is accustomed before its birth & especially during the ~~sixth month~~ eight, from the tossings and turnings of its mother in bed; of course it must be not only agreeable, but natural ~~to~~ in the first months of infancy. It aids by its gentle stimulus, the involuntary exercises of their little limbs ~~in a stimulus in supporting the~~ fanning ~~the flame of the~~ the flame of animal life which it is in its ~~rise~~ from

weak
~~feeble~~ and forming state.

In youth and middle life the exercises should be walking, riding, jumping, dancing, swimming, skating, digging in a garden, cutting & sawing wood, and the more active games which have been mentioned.

In old age the exercises should ~~habits~~ ~~those of infancy and childhood~~ chiefly of a passive & mixed nature. Riding in a carriage, sailing, moderate walking, reading aloud, & talking ~~and~~ ~~or talking~~ and singing. The three last, by the impetus they ~~impart~~ give to the blood in passing through the lungs, invigorate the whole system. The "narrative" disposition ~~is~~ so common & so unjustly complained off in old ~~age~~ people, is one of the strongest ligaments of their lives, and the great~~er~~ facility with which they are able

to exercise this disposition in cities, ~~than in the country~~, is one reason why ~~more~~ ~~of~~ instances of longevity are more common in them ~~[illegible]~~ than in ~~the little~~ country places. "I will practice physic (said an old physician in England) as long as I live, for ~~by~~ if I retire from business, I shall be deserted by the world, and have no body to talk to, but while I continue to exercise my profession I can compel my patients ~~to~~ hear my conversation."

Women, ~~require less exercise than~~ from the greater excitability of their system ~~yielding~~ require less exercise than men. It was because they have sedentary employments

~~without being much injured by them~~
~~that the business of the Taylor was~~
~~carried on by them in Ancient Rome~~

When old people ~~have advanced~~ are confined to their houses by bad weather, or when they are advanced beyond that period in which exercise is safe or practicable, ~~these limbs or~~ frictions should be used to their limbs and bodies. In China there is a class of men who maintain themselves by going from house to house like hairdressers in other countries, in order to apply this remedy to ~~old~~ persons in the decline of life. They first gently strike them with the side of the hand, & then ~~rub~~ follow these strokes by gentle ~~rubbing~~ frictions either with a dry

hand, or a piece of silk or muslin impregnated with the smoke of myrrh, or some other fragrant & stimulating gum. ~~It is~~ The operation is called Champoing. It is said ~~of~~ a man of 65 ~~year of age~~ after having submitted to it in the morning, walks out afterwards with the complexion & vigor of a man of fifty years of age. ~~that belong to the 50 of his years of~~ ~~that~~ From the return of that state of the system ~~year~~ ~~old~~ people who are advanced to that stage of life which has been called decrepitude should ~~be~~ not be permitted to walk upon uneven ground without ~~the~~ support of a staff, or of what will be much better the arm of a friend. ~~From the return of the weakness of that state of the~~

System in old people which takes place in infancy, they are disposed to stumble in walking, and from their losing a prompt command over their voluntary actions, they are unable to ~~throw out their arms so as to preserve~~ preserve their centre of gravity by the balance of their arms, and ~~to defend their heads and bodies from injuries~~, hence they generally fall, and from ~~the cause~~ an inability to project their arms in falling, they ~~which~~ often injure their heads and sometimes break or dislocate their bones. Accidents of this kind are very common in the practice of all physicians. They should be prevented by never permitting ~~old~~ very old people to walk upon uneven ground

V ~~Studious men~~ many studious men who have lived to be very old ~~and never have spent the~~ have spent the last years of ~~long~~ their lives in their closets free from pain and disease. The celebrated Mr Boyle ~~lived alone~~ breathed no other air than that of his rooms in ~~from years for before~~ during the greatest part of his life. ~~In this~~ But

without the support of a staff, or what will be much better, the arm of a friend. —

It is a fact worthy of notice that the body suffers less from the want of exercise in the ~~feeble~~ state of old age which has been called decrepitude than in any of the previous stages of life. Thousands of old people in whom the exercises of the mind do not supply the defect of activity of the body pass from ~~40~~ their 80th to their 90th and even 100th year in an arm chair, or in that state in which they are said to be bed-ridden, ~~who are totally destitute of the exercises with good appetites~~ During this time they eat heartily and sleep well. It would seem in these cases as if the habit of living rendered the system less dependant upon the stimuli which gave the first impulses to ~~life~~ the functions of life. Perhaps too the ceremony

of all other secretions & excretions acquired by age, may supply by its stimulating qualities the absence of the stimulus of exercise. —

~~without the support of a staff or what will be much better the arm of a child, a grand child, or a friend.~~

Women, from the greater ~~exci-~~ irritability of their systems, ~~the~~ require less exercise to preserve their health than men. They were for this reason destined to the sedentary employment of the Taylor in ancient Rome. The activity of their minds supplies in a degree the exercise of their bodies. Domestic ~~embroidery~~ labor, ~~Domestic~~ ~~the~~ walking, dancing, and riding on horseback and in a Carriage are the exercises most proper for them. They should never be dispensed with when practicable at any time of life, but they are most indicated about the

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age of puberty. It is at this time of life the female constitution is formed, & ~~from~~ on the manner in which it is spent ~~passed~~ depends the future health, or sickliness of a woman. Let no day pass therefore between the ages of 14 and 20, without a walk, or a ride in the open air, and when this is forbidden by bad weather let a double portion of domestic labor consisting in making beds, rubbing furniture, and the like be performed by them. Women derive ~~the same~~ great advantages from exercising their lungs in ~~speech~~ speaking, reading and singing, ~~that have just now been described~~ and it ~~for~~ for this reason probably that they are more disposed by nature to all of them than men. A ~~silent woman is~~ taciturnity & bad health ~~are~~ generally go together in a Woman.

If they are less agreeable or instructing in the use of ~~this~~ organs ~~and~~ voice & speech than ~~some~~, it becomes ~~them~~ to inquire whether they are not made so by the neglect of their creations, or by making ~~this~~ it to consist in accomplishments rather than in ~~[illegible]~~ just principles and useful knowledge. —

Studious men suffer from their sitting posture, and often from pressing their desks with their breast or bowels in writing. By the exercises of their minds, they abstract ~~[illegible]~~ nervous influence so necessary to the health of every part of the body from the trunk of the body particularly the stomach, and ~~the~~ from the lower limbs. Their bodily exercises of course

v in favour of walking. It was the principal mode of exercise of a Set of philosophers in Greece, who obtained from it the name of Peripataticks. It not only equalizes the ~~t~~ excitement of all the muscular parts of the body, but it ~~improves~~ aids the ~~faccies~~ operations of the mind. We are taught by others in our Closets, but we teach ourselves in our ~~morning~~ walks.

should be such as are calculated to restore the equilibrium of nervous influence to ~~the~~ every part of the body. They should be walking, jumping, foot ball swimming, skating rowing, cutting & sawing wood, and riding on horseback. ~~The~~ Too much cannot be said that any proper ~~or~~ healthy people ~~for~~ the same exercises will be equally ~~proper~~ for men who pursue sedentary occupations of all kinds, & in which the ~~stomach~~, bowels & lower limbs are in a passive state. In exercising these ~~In exercising~~ ~~but while these~~ parts of the body, ~~which have suffered~~ ~~have been passive~~, care should be taken to relieve ~~the arms~~ those which have been occupied ~~by arms~~ in business, by new exercises. Thus ~~the~~ ~~farmer of a painter a taylor. a blacksmith~~ ~~and of~~ all those mechanics & artificers who work exclusively with their arms, should employ them in the intervals of their labor in cutting ~~wood~~ or sawing wood - or

in rowing, digging in a garden, or in playing at Quoits or Golf. By these means all the muscles of this arms will be brought into ~~Action~~ and equal strength be imparted to each of them. ~~of labors should extend to~~ ~~This change in the employments of Artificers of all kind~~

Similar advantages would attend a change in the exercises or labors of Artificers of all kind. The limbs of the Smith & the Carpenter ~~and~~ would be strengthened by the labors of the harvest field, and the same benefits would be ~~seen~~ enjoyed by the farmer from his taking ~~the~~ a row & then a hammer and a trowel into his hands and repairing the decay brought by time upon his house and barn. —

~~The~~ ~~All~~ The specific kinds of exercises that ~~have been mentioned should be accommodated to the predisposition of~~ ~~the~~ are proper for persons who labour under peculiar predisposition to certain diseases shall be ~~the~~ noticed in another place.

Having recommended riding on Horseback as one of the first and best modes of exercise for promoting health, the reader I hope will not be offended ~~by~~ at my subjoining to this Chapter a few Directions for preserving the health of the ~~noble~~ Animal ~~that~~ that is ~~to~~ the instrument of ~~imparted for this to which we owe so much of our success~~ exercise. We owe him many ~~other~~ obligations. ~~Plea~~ ~~sure and interest~~ Agriculture & Commerce, pleasure and interest are all his debtors, but I found my petition for a place for the ~~solicit a place as this a place in this~~ in this work directions ~~rules~~, I am about to deliver chiefly upon his contributions to the health of man.

1 A horse ~~feeds always~~ inclines to eat constantly. He is compelled to do so by the small size of his stomach. It is necessary therefore that he should always have access to food when he is not under the saddle, nor in harness. The reason why

horses in this country lose their flesh after ~~[illegible] fall away after~~ the first of June, ~~when they run in pasture~~ is because they ~~in the middle states~~ ~~country is because the heat of the sun drives them to seek the shade, and flies prevent them~~ are kept from feeding constantly by the heat of the sun driving them to seek the shade and by the annoyance of flies. Both these causes operate in the field, and the latter in a stable with open windows. To obviate both, a horse should be kept in a dark stable in the day time, and let out to pasture only in the night. The heat of a dark stable is less hurtful to ~~them~~ him than the biting of flies, and the night protects him ~~[illegible]~~ from both flies and the heat of the sun. As a proof of the correctness of this direction it has been remarked that a horse acquires more flesh and fat in three weeks in the

V remembered, that the stable should be darkened only when the flies are troublesome to a horse, at all other times ~~they should be~~ light should be let into the stable by means of a glass window, ~~which~~ from the aspect of this direction many horses become blind in consequence of the violent impression of the light upon their eyes when they are first taken out of a stable.

month of June than he does in all the preceding hot months. I wish it to be V

2 A horse acquires more nourishment in a shorter time by feeding upon hay than grass. He cannot preserve his flesh upon less than twelve pounds of hay in the four & twenty hours. ~~Tho'~~ Sixteen pounds are usually given to a Dragoon horse in the that time in the British army.

3 The longer a horse is in taking his food the more strength it imparts to him. The old field horse (as he is called in Maryland) owes his uncommon hardihood to the long time he spends in picking up the low and tender grass of an old, or fallow field.

4 To induce a ~~fo~~ horse to feed constantly, and to masticate his food thoroughly, but little should be put into his

rack or manger at a time

5 Old hay is better than new, and timothy grass is said to be better than Clover.

6 Indian Corn affords the most, and Oats the least nourishment to a horse of any of the grains. ~~They afford~~ All the grains afford one third more nourishment when they are ground, and one half more when they are boiled, or baked. In Holland horses are fed ~~with oats~~ with grain made into a Coarse bread. It is useful to mix cut hay, or straw with all the small grains that are given to a horse. The Cob should be ground, and given with Indian Corn to a horse. All these substances act by compelling a horse to masticate

his food more completely, and they further
under by the stimulus of distention in
the stomach less food necessary to support
~~the~~ his strength and activity. Oats from
being less stimulating than other grains
should be preferr for a horse when he tra-
-vels. I mentioned formerly that
~~If~~ a horse when he feeds upon hay or
grain seldom makes use of his fore
teeth as he does when he feeds upon
grass; for which reason ~~boots~~ his foreteeth become so
elongated as to prevent ~~their~~ his jaw teeth
coming in contact, by which means ~~they~~ he
~~are~~ is unable to grind ~~their~~ his food, and swallows
it in an undivided state, and hence ~~they~~ he
becomes poor and weak with the greatest
quantity of aliment that can be given
to ~~them~~ him. To prevent this, where it is

not convenient to send him to pasture, he should be fed once or twice every week upon unshelled Corn, ~~or~~ that is Corn upon the Cob. ~~By~~ In feeding upon Corn in this state he is forced to use his ~~jaw~~ fore teeth, and thus keeps them from projecting from their sockets above the level of the jaw teeth. There is Oeconomy as well as humanity in this practice, for where a horse ceases to ~~masticate~~ grind his food with his jaw teeth, he consumes ~~twice~~ a double quantity ~~as much~~ of it and is thus kept at a double expense.

8 The oftner the food of a horse is changed the better.

9 A little salt now & then mixed with the food of a horse helps his digestion, & obviates Worms.

10 ~~a horse~~ the should drink twice a day in winter and three times a day in summer ~~while he~~ when kept in a stable.

11 He should stand upon ~~a~~ ~~an~~ ~~flat~~ ~~an~~ an even floor, or nearly so in a stable. A declivity ~~behind~~ descending from the manger, although it favours the descent of the Urine fatigues a horse by throwing an undue proportion of his weight upon his hind legs, which disposes them to swell, also to a disease ~~he is in his feet~~ in them, known by the name of the Scratches. The Urine should be made to pass through a hole into the ground under his belly.

12 A warm stable in winter is favourable to the health and flesh of a horse. It saves food, for in a cold stable he eats to keep himself warm. The Germans ~~in Pen~~ farmers in Pennsylvania ~~to whom this practice~~ ~~fact is~~

~~well known, that~~ have long ~~profitted~~ benefitted both themselves and their horses by this practice. In very cold weather, ~~as~~ the body of a horse should be covered with a blanket, where his stable is not sufficiently warm. —

13 Great attention should be paid to the shoeing of a horse. His ~~ha~~ gaits & his health, and often the safety of his rider depend upon it. For some useful directions upon this the reader is referred to White's farriery.

14 A horse should be well cleaned & curried every day.

15 He should be ~~ca~~ taken to a stream of water ~~and~~ once or twice a week in warm weather, and made to exercise his limbs by swimming. By this means ~~muscles will be brought in to~~

~~Action which are ~~ are nearly passive~~
~~in his ordinary~~ gaits, and new actions will be
given to his muscles and his health &
strength thereby be improved. The swimming
will further serve to wash his skin.
16 The shoulder used tenderly when he is shed=
=ding his coat, being weaker at that time
than at any other season of the year.
17 In performing a short & rapid journey of thirty
or forty miles in a day, a horse should
eat but little grain. In protracted journeys which are performed
slowly, he should eat grain moderately during the
day, and plentifully at night. This will
be the more necessary from his not having
time ~~enough~~ enough to eat as much hay or
grass in the day time as will be suffici=
=ent to fill up his blood vessels & keep
up his flesh.

18 never suffer a horse to drink well or spring water when he is warm. It often founders ~~a horse~~ horse, or in other words, produces a rheumatism in his feet. Running water in summer, and when cold in winter (from ~~the horse's~~ his feet coming in contact with it before he drinks) seldom injures him.

19 Oats should well ribbed at every stage in travelling. It removes fatigue by rest=ing the ~~fibres and~~ muscles of his limbs.

20 Always take off the saddle or harness from a horse when you stop to feed him. It cools him and makes his rest more complete. Washing his back and breast with cold water, or throwing a bucket of cold water

upon them, prevents their being galled by the saddle or harness. If he wet with sweat, and not much fatigued, the cold water may be thrown over his whole body. His feet should be often washed with cold water in hot weather both in travelling & in the stable.

21 After hard riding, or driving a horse do not permit him to rest suddenly. By walking him for a quarter an hour you prevent stiffness and founder.

22 Never permit a horse to stand in the open air after night if he too much fatigued. The locked jaw is sometimes brought on by the action of the night air upon him.

23 Always ride slowly for two miles or

three miles after you have a stage, also up and down a hill. ~~The Scotch people~~ In Scotland they express the latter part of this Direction in Verse." Up hill & down hill gang slow.

" Feed well & rub sare
" and ~~and~~ on a plain mere spare.

24 Throw as much of your weight as possible in riding near the shoulders of a horse. Heavy baggage placed over his kidneys is always hurtful to him, especially if his gait be a trot.

25 It is common to advise riding with a tight rein, in order to prevent a horse's stumbling, but some late writers upon farriery say it is often ~~causes a horse to stumble.~~ the ~~be~~ cause of it. The famous Mr John Wesley rode many thousand miles every year with the reins

of his bridle thrown over his horses neck, without ~~being once thrown from his horse~~ his thinking by which means he was able to read with nearly as much advantage as if he were in his study.

26 Horses possess a social principle in a high degree more especially each of them as are good tempered, but their society is very limited. An hundred horses in a field pair themselves ~~pair themselves~~, which pair feed and drink together. Two horses that have travelled along side with each other, and are afterwards confined in the same ~~field~~ pasture will seldom leave each other, even though one of them is addicted to leaping fences. A horse therefore always travels the better for his companion by his side, or

before him. It would be a good practice for a Gentleman upon this account, who travels with a Servant to oblige him to ride before ~~him~~ instead of behind him. To derive benefit from this social principle in horses they should always be fedd stabled together upon a journey.

27 The sound of a human Voice has an agreeable effect upon the Spirits & strength of a horse. An experienced ploughman once told me, that his horses performed with twice as much spirit when he sang to them, as when he did not. In this respect the horse is upon a footing with the human species. Soldiers march with double spirit with the noise of the fife and drum sounding

in their cass.

28 If a horse flag, near the close of a journey, ardent spirits or porter mixed with his food, will reexcite his strength. They should be given at no other time, for they produce only ~~their good effects are~~ ~~near permanent, and a~~ a short, and transient ~~caution~~ stimulus, barely sufficient to carry ~~a horse~~ him to the end of his journey. ~~By a neglect of~~ By a careful attention to these directions horses which in this Country are often worn out or useless at thirteen or fourteen years of age ~~By~~ may be kept alive & fit for service, for twenty or five and twenty years, much to our benefit & the credit of humanity.

# of Sleep

~~Among the many paradoxes in fashion with which modern times have teemed, few have been more absurd than that portion of the belief held by~~ The late marquis of Condorcet has taken pains to prove that Sleep ~~was~~ is a disease, and that philosophy ~~could~~ will one day find a remedy for it. In the present constitution of our bodies that day can never arrive. ~~Admit it to be a disease, we must~~ ~~Did we admit~~ Had he said it was a remedy for disease, he would have been more correct. ~~It~~ Happily for us, it removes light indispositions by equalizing the excitement of the system – it ~~restores~~ renews that substance or quality in the body upon which stimuli act in the production of life – ~~it drives it~~ ~~restores~~ it dissolves ~~those~~ dangerous apparitions of ideas, ~~which in a person the~~

~~in a hour if not interrupted by sleep~~ but it would ~~mind is under the influence of a durable opium~~ ~~would not in a~~ ~~in a hundred instances~~ ~~produce derangement~~, and lastly it ~~it~~ restores the understanding and moral faculty to their elevated & preeminent seat in the mind & thus prevents both disease and vice. "~~without~~ ~~Sleep~~ and hope man (says Mr Kant) would be the most miserable creature upon the face of the earth." ~~Shakespeare's account of sleep accords more perfectly with~~ This account of sleep ~~is expressed in more~~ accords with the history of it given by the great philosopher as well as poet of nature. ~~Shakspeare~~.

"Sleep - knits up the ravelled sleeve of care.
——— Sore labors bath,
"Balm of hurt minds, great nature's
second course.
"Chief nourisher, in life's feast. —"

Well therefore has Mr Kant said "without sleep & hope man would be the most miserable

creature upon the face of the earth".
I shall now deliver some general rules upon this Subject.

1 Sleep should never exceed 7 or eight hours in the twenty four. Persons in health never require more, and many people enjoy good health with less. The celebrated Mr. John Wesley slept but six hours in the twenty four during the greatest part of his active life which lasted until he was nearly 86 years of age. History records the names of many studious men who have lived long and in health upon new less sleep that the degrees of it which have been mentioned.

2 Great advantages to health will arise from going to bed at an early hour.

~~of black and acres in flight pass~~

The System is by this means suffered to repose After the impressions of the day have exhausted its natural stock of excitability, and before it ~~rises~~ is exposed to the artificial stimuli of study, company or strong drink. ~~By~~ a recumbent posture of the body favours this flate of the System, and prepares it for the results of sleep. By going to bed early, we are enabled to rise ~~with the lark early~~ early. The morning favours study and business. ~~and is thus conducive to health~~ It favours likewise the regularity of ~~one~~ the exertions to be mentioned hereafter, all of which conduce to health. The late Lord Mansfield who was very attentive to all the circumstances that promote longevity, once remarked that

he had never known a long lived person who was not an early riser. —

An advantage will be derived from going to bed and rising at the same hours. The System ~~acquires a habit~~ conforms to them, by which means ~~they both become~~ sleeping and waking ~~take~~ place in an easy and natural manner.

3 ~~The~~ In the Savage state sleep is safe & agreeable with the head in a horizontal line with the body, but civilized man ~~requires favors the~~ requires that his head should be somewhat elevated above the shoulders. A pillow serves this purpose, and ~~when~~ so necessary does it become from habit that a saddle, a log, ~~saddle~~, a pile of leaves, ~~or a~~ and even a Stone are sometimes resorted to to supply its place.

The ~~knees upon~~ limbs should be moderately bent in sleep, and a habit of sleeping constantly upon the same side should be carefully avoided. It will be useful to sleep alternately ~~on~~ upon ~~both~~ each side every other night, & still better to ~~change the side~~ upon each side every night. ~~From~~ ~~the neglect of~~ The neglect of this practice has often ~~practice have appeared in~~ been attended with the most serious consequences. During ~~For~~ the last seven years of my life, I have met with but one case of palsy in which the patients did not acknowledge they had been in the habit of sleeping only upon the the same side. Sleep upon the

back should likewise be carefully avoided. ~~Persons~~ The night mare attacks most frequently in this posture of the body. Persons who ~~are possessed that in~~ die suddenly in the ~~their beds~~ night, are generally found upon their backs in the morning. —

4 When sleep is required, or indulged in during the day, it ~~should~~ will be best to take it in a sitting posture with the neck as erect as possible, and the ~~feet~~ lower limbs placed horizontally upon a chair. This will prevent the swelling of the feet. If a recumbent posture be preferred for a nap during the day, all the ligatures upon the body should be ~~loosened~~ first unclosed. ~~before~~ ~~Unless this sleep is other~~ ~~The body been prone it~~ Unless this be done, sleep will be uneasy, and ~~fatiguing~~

not refreshing. The persons who accompany surveyors into our woods, and who lie down in their ~~refuse to take off their~~ be clothes for a while when they sleep in the open air, are ~~but~~ vouchers for the truth of this fact, for which ~~the want of food and after having sleep~~ reason they are now obliged to ~~to force to~~ ~~have food then to~~ ~~the practice of~~ take off their clothes to ~~sleep~~ lie in their blankets as they do in their beds. This sleep then becomes easy and ~~reviving~~ restores the strength and activity of their bodies. — ~~The~~ Sleep in a horizontal posture of the body ~~in sleep~~ should be avoided for several hours after a full meal whether it be a dinner or a supper.

The System calls for different portions of Sleep in different ages, occupations & seasons of the year. ~~and at different times.~~

~~In Infancy~~ Sleep should fill up one half the time of Infancy, and more than a ~~third~~ of Childhood.

It should never exceed 7 or 8 hours in youth or middle life. —

In old age ~~it should~~ it should, ~~be~~ when practicable, be much longer. It should be taken early, and during the day as well as during the night.

Studious men require the ~~same~~ full portions of Sleep that are necessary in ~~youth~~ youth and middle life. It is best taken in the early part of the night when the hours of Study can be determined by our Choice. ~~Professional men~~ Physicians who ~~in the United States~~ are unhappily precluded from this

conformity of their systems to nature, ~~but~~ ~~they~~ suffer by ~~from~~ neglecting it from the ~~constantly~~ constant exercise of their bodies during the day.

Laborers of all kinds require seven or eight hours sleep. —

~~During the long~~ In consequence of the greater expenditure of the strength of the body by the ~~more~~ ~~active~~ violent labors, or ~~more~~ active exercises of winter, and by the labors and heat of summer, more sleep is necessary in those seasons than in the spring and autumnal months. —